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RR10-03-2009 Soybean Variety Performance Tests in Tennessee

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Soybean Variety Performance Tests in Tennessee 2009

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Variety test results are posted on UT's website at http://varietytrials.tennessee.edu and www.utcrops.com

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Dennis Onks, Center Director
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2009 County Standard Tests Soybean Plot Cooperators & Agents

Group III	**Cooperator(s)**	**Agent**
Coffee	L.A. Teal & Mike England	Steve Harris
Dyer	Alan Burchfiel	Tim Campbell
Franklin	Larry Williams	Ed Burns/Creig Kimbro
Gibson	Keith Steele	Philip Shelby
Lake	Petty Farms	Greg Allen
Madison	Matt Griggs	Bill Wyatt
MREC	Dr. Blake Brown	Dr. Angela McClure
Obion	Kenneth & Blake Cheatham	Tim Smith
Weakley	Hall Farm	Jeff Lannom

Group IV Early		
Coffee	L.A. Teal & Mike England	Steve Harris
Dyer	Mike Underwood	Tim Campbell
Franklin	Larry Williams	Ed Burns/Creig Kimbro
Fulton, KY	Johnson Linder	Ben Mullins
Giles	J. Tucker	Kevin Rose
Henry	David & Finis Wilson	Ranson Goodman
Lake	Jon Dickey	Greg Allen
Lawrence	Bent Larsen	Calvin Bryant
McCracken, KY	Lester & Tracy Sullivan	Bob Middleton
Obion	Kenneth & Blake Cheatham	Tim Smith
Weakley	Hall Farms	Jeff Lannom

Group IV Late		
Coffee	L.A. Teal & Mike England	Steve Harris
Crockett	Mac Summerlin	Richard Buntin
Dyer	Mike Underwood	Tim Campbell
Franklin	Terry Baggett	Ed Burns/Creig Kimbro
Fulton, KY	Mark Yaussi	Cam Kenimer
Gibson (1)	Denton Clay Parkins	Philip Shelby
Gibson (2)	Keith Steele	Philip Shelby
Haywood	John King	Tracy Sullivan
Henry	David & Finis Wilson	Ranson Goodman
Lake	Jon Dickey	Greg Allen
Lauderdale	Scott Mathis & Chris Peyton	James Griffin
Madison	Matt Griggs	Bill Wyatt
Montgomery	John Allensworth, Jr.	Rusty Evans
Obion	Kenneth & Blake Cheatham	Tim Smith
Weakley	Luke Cochran	Jeff Lannom

Group V Early	**Cooperator(s)**	**Agent**
Coffee	L.A. Teal & Mike England	Steve Harris
Crockett	Stoney Hargett	Richard Buntin
Dyer	Rusty Grills	Tim Campbell
Fayette	Lee Graves	Jeff Via
Franklin	Terry Baggett	Ed Burns
Gibson	Keith Steele	Philip Shelby
Hardin	Gerry Lambert	Marcus McLemore
Haywood	John King	Tracy Sullivan
Lake	David Keefe	Greg Allen
Lauderdale	Johnny Dodson	James Griffin
Lincoln	Tommy & Jared Bradley	David Qualls
Madison	Matt Griggs	Bill Wyatt/Richard Buntin
Obion	Bill Thompson	Tim Smith
Weakley	Brian Garner	Jeff Lannom

Conventional/RR/LL MG4 & 5

Dyer	Allen & Keith Sims	Tim Campbell
Gibson	Scotty Barnett	Philip Shelby
Hardin	Gerry Lambert	Marcus McLemore
MREC (1)	Dr. Blake Brown	Dr. Melvin Newman
MREC (2)	Dr. Blake Brown	Dr. Angela McClure
Obion	Billy Sellers	Tim Smith
Weakley	Billy Scarbrough	Jeff Lannom

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PERFORMANCE OF SOYBEAN VARIETIES IN TENNESSEE

RESEARCH & EDUCATION CENTERS AND COUNTY STANDARD TESTS

Experimental Procedures

Research & Education Center Tests: All soybean variety trials were conducted in each of the physiographic regions of the state. Tests were conducted at the Ames Plantation (Grand Junction), Highland Rim (Springfield), East Tennessee (Knoxville), Middle TN (Spring Hill), and Milan (Milan), Research & Education Centers (REC). Duplicate plantings of all six tests **[Maturity Group 3 Roundup Ready (i.e., RR3), RR4 early (relative maturity 4.0ï 4.5), RR4 late (RM 4.6ï 4.9) RR5 early (RM 5.0ï 5.5), RR5 late (RM 5.6ï 5.9) and Conventional (RM 4.2ï 5.9)]** were made at the Milan and Middle Tennessee RECs for performance testing with and without irrigation.

The plot size at all REC locations was two rows, 30 feet in length. All varieties were planted at approximately 10 seeds per foot of row (i.e., approximately 175,000 seed per acre). Plots were replicated three times at each location in a randomized complete block design. Plots at Milan and Springfield were sprayed with a foliar fungicide approximately one month after planting, and again approximately 21 days later as a preventative treatment for fungal diseases such as soybean rust. Soybean rust was detected in Tennessee again this year in early September but the appearance of the disease occurred too late in the growing stages of most soybeans to be a serious threat. Because of the large number of varieties in some tests and the field variation at each location, an incomplete block design was imposed *ex post facto* prior to data analysis in order to reduce the within-block field variability and the experimental error. Due to harvest irregularities and mechanical problems, data from the Middle Tennessee REC (RR3 and Conventional tests) and from the Ames REC (RR5L test) were not used in the analysis.

County Standard Tests: The County Standard Soybean Tests were conducted in 18 counties in Tennessee, and five in Western Kentucky. The number of counties depended on the test (e.g., 7-15). The County Standard Tests were divided into **RR3, RR4 early (relative maturity 4.0ï 4.5), RR4 late (RM 4.6ï 4.9), RR5 early (RM 5.0ï 5.5) and a Conventional (RM 4ï 5) test.** Each variety was evaluated in a large strip-plot at each location, thus each county test was considered as one replication of the test in calculating the overall average yield and in conducting the statistical analysis to determine significant differences. At each location, plots were planted, sprayed, fertilized, and harvested with the equipment used in the cooperating producer's farming operation. The width and length of strip-plots were different in each county; however, within a location in a county, the strips were trimmed on the ends so that the lengths were the same for each variety, or if the lengths were different then the harvested length was measured for each variety and appropriate harvested area adjustments were made to determine the yield per acre.

Interpretation of Data

The tables on the following pages have been prepared with the entries listed in order of performance, the highest-yielding entry being listed first. **All yields presented have been adjusted to 13% moisture.** At the bottom of the tables, **LSD** values stand for **Least Significant Difference**. The mean yields of any two varieties being compared must differ by at least the amount shown (minimum) to be considered different in yielding ability at the 5% level of probability of significance. For example, given that the LSD for a test is 8.0 bu/a and the mean yield of Variety A was 30 bu/a and the mean yield of Variety B was 35 bu/a, then the two varieties

are not statistically different in yield because the difference of 5 bu/a is less than the minimum of 8 bu/a required for them to be significant. Similarly, if the average yield of Variety C was 43 bu/a then it is significantly higher yielding than both Variety B (43 - 35 = 8 bu/a = LSD of 8) and Variety A (43 - 30 = 13 bu/a > LSD of 8).

Also, the **coefficient of variation (C.V.)** values are shown at the bottom of each table. This value is a measure of the error variability found within each experiment. It is the percentage that the error variation is of the overall test mean yield at that location. For example, a C.V. of 10% indicates that the size of the error variation is about 10% of the size of the test mean. Similarly, a C.V. of 30% indicates that the size of the error variation is nearly one-third as large as the test mean. A goal in conducting each yield test is to keep the C.V. as low as possible, preferably below 20%.

RESULTS

Yield and Agronomic Traits. Two hundred and five soybean varieties were evaluated in the 2009 **Research & Education Center (REC)** tests in Tennessee. There were eight varieties in the RR3, 36 in the RR4E, 78 in the RR4L, 42 in the RR5E, eight in the RR5L, and 33 in the conventional MG4/MG5 test. Additionally, 10 varieties that were treated with *Cruiser* (a systemic insecticide seed treatment) were included in the RR3 (2), RR4E (2), RR4L (2), RR5E (2), and RR5L (2) tests (Tables 56-61). The **County Standard Tests (CST)** involved 92 varieties total, consisting of a RR3 test (10 varieties at nine locations), a RR4E test (23 varieties at 11 locations), a RR4L test (30 varieties at 15 locations), a RR5E test (21 varieties at 14 locations) and a Conventional MG4/MG5 test (13 varieties at 7 locations). In addition to 18 Tennessee counties, the County Standard Tests involved five counties in Western Kentucky (Fulton, Ballard, Carlisle, Hickman, and McCracken). **Tables 2 – 61** contain data on yield and agronomic traits such as maturity, plant height, lodging, shattering, seed quality, seed protein and oil content. **Table 62** lists the names and the companies descriptive characteristics of the varieties included in the REC tests in 2009. **Table 63** contains the contact information for each soybean seed company with entries in the 2009 REC tests.

Growing Season: The 2009 growing season was characterized by cooler and wetter than normal conditions overall. According to the Tennessee Agricultural Statistics Service, producers planted 1.53 million acres this year, the highest acreage since 1984. Soybean production for 2009 is projected to be 62.7 million bushels, an increase of 26 percent from the previous year and the largest crop since 1979. Wet conditions in September through November delayed harvest by nearly a month past the normal pace and negatively affected seed quality. The state soybean yield average is projected to be 41 bu/a, 10 bushels above 2008 yields and the second highest on record.

Insecticide Seed Treatments: In order to evaluate the effects of seed that had been treated with a systemic insecticide such as Cruiser versus seed that had not been treated, 10 varieties (two from each maturity group) were evaluated in the Research and Education Center tests in 2009. Asgrow AG3803, Hornbeck R3927, Progeny 4508RR, Dyna-Gro 36C44, Asgrow AG4903, USG 746F96, Asgrow AG5503, USG 7553nRS, Progeny 5706RR and USG Allen were planted at each location with and without the systemic insecticide 'Cruiser' seed treatment. All plot seed were treated with a fungicide. The Cruiser insecticide seed treatments resulted in fairly inconsistent yield differences among varieties and REC locations. There were small, statistically significant yield increases for only two of the 10 varieties (Dyna-Gro 36C44 and Asgrow AG4903)

that had been treated with Cruiser as compared to the non-Cruiser treated seed across locations. The 10 varieties treated with Cruiser averaged a statistically non-significant 1 bu/a increase across all locations as compared to the non-Cruiser treated seed (Table 56). The inconsistent responses are similar to results obtained in past year's studies of systemic insecticide treated seed in this program.

REC SDS Ratings: A somewhat severe and uniform occurrence of SDS at the East Tennessee REC (Knoxville) allowed ratings to be taken for variety reactions to this soil-borne fungal disease (*Fusarium solani* f. sp. *glycines*). The plot area was previously planted in corn during the 2008 season and was planted with a wheat cover crop during the winter before soybeans were planted in a minimal tillage environment. Ratings were taken on the maturity group 3, 4 early, and 4 late tests on 8/26/09. Ratings were taken on the maturity group 5 early, 5 late and conventional tests on 9/3/09. Two ratings were taken in the field for each replicated plot. The disease incidence (DI) is a visual estimate of the percentage of plants infected with the disease (0 – 100%). The disease severity (DS) is a visual estimate of the severity of the infection on a 0 to 9 scale (0 = no disease, 9 = severe disease, early defoliation and desiccation). The disease index (DX) a calculated an estimate of the overall susceptibility to the disease on a 0 to 100 scale (DI x DS/9). The higher the DX value, the more susceptible the variety is to SDS. This data has been sorted by ascending DX (Most Resistant to Most Susceptible) and is presented in **Tables 4, 12, 22, 32, 42, and 49**.

CST Disease & SCN Ratings: Ratings on variety reactions to SDS, frogeye leaf spot, anthracnose and stem canker are presented in **Tables 8, 18, 28, 38** (data provided by Dr. Melvin Newman, professor, Dept. of Entomology and Plant Pathology, UT). Soybean cyst nematode (races 2, 3, and 14) ratings in these tables provided by Dr. Pat Donald, USDA-ARS, Jackson, TN.

Table 1. Location information from research centers where the soybean variety tests were conducted in 2009.

Research Center	Location	Planting Date	Harvest Date	Seeding Rate	Soil Type
Roundup Ready Maturity Group III					
Highland Rim	Springfield	5/19/2009	10/10/2009	175000	Dickson Silt Loam
Knoxville	Knoxville	5/13/2009	9/24/2009	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/22/2009	10/12/2009	175000	Loring Silt Loam
Milan (Non Irrigated)	" "	5/21/2009	10/13/2009	175000	Grenada Silt Loam
Middle TN (Irrigated)	Spring Hill	5/27/2009	10/20/2009	175000	Maury Silt Loam
Middle TN (Non Irrigated)	" "	5/26/2009	10/21/2009	175000	" " "
Roundup Ready Maturity Group Early IV (4.0 - 4.5)					
Ames	Grand Junction	4/27/2009	9/30/2009	175000	Lexington Silt Loam
Highland Rim	Springfield	5/19/2009	10/12/2009	175000	Dickson Silt Loam
Knoxville	Knoxville	5/13/2009	9/23/2009	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/22/2009	10/19/2009	175000	Loring Silt Loam
Milan (Non Irrigated)	" "	5/21/2009	10/19/2009	175000	Grenada Silt Loam
Middle TN (Irrigated)	Spring Hill	5/27/2009	10/20/2009	175000	Maury Silt Loam
Middle TN (Non Irrigated)	" "	5/26/2009	10/21/2009	175000	" " "
Roundup Ready Maturity Group Late IV (4.6 - 4.9)					
Ames	Grand Junction	4/27/2009	10/1/2009	175000	Lexington Silt Loam
Highland Rim	Springfield	5/19/2009	10/17/2009	175000	Dickson Silt Loam
Knoxville	Knoxville	5/13/2009	9/30/2009	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/22/2009	10/20/2009	175000	Loring Silt Loam
Milan (Non Irrigated)	" "	5/21/2009	10/19/2009	175000	Grenada Silt Loam
Middle TN (Irrigated)	Spring Hill	5/27/2009	10/22/2009	175000	Maury Silt Loam
Middle TN (Non Irrigated)	" "	5/26/2009	10/26/2009	175000	" " "
Roundup Ready Maturity Group Early V (5.0 - 5.5)					
Ames	Grand Junction	4/27/2009	10/20/2009	175000	Lexington Silt Loam
Highland Rim	Springfield	5/19/2009	11/3/2009	175000	Hamblen Silt Loam
Knoxville	Knoxville	5/13/2009	10/21/2009	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/22/2009	10/20/2009	175000	Loring Silt Loam
Milan (Non Irrigated)	" "	5/21/2009	10/20/2009	175000	Grenada Silt Loam
Middle TN (Irrigated)	Spring Hill	5/27/2009	11/2/2009	175000	Maury Silt Loam
Middle TN (Non Irrigated)	" "	5/26/2009	11/4/2009	175000	" " "
Roundup Ready Maturity Group Late V (5.6 - 5.9)					
Ames	Grand Junction	4/27/2009	10/20/2009	175000	Lexington Silt Loam
Highland Rim	Springfield	5/19/2009	11/3/2009	175000	Hamblen Silt Loam
Knoxville	Knoxville	5/13/2009	10/22/2009	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/22/2009	10/26/2009	175000	Loring Silt Loam
Milan (Non Irrigated)	" "	5/21/2009	10/26/2009	175000	Grenada Silt Loam
Middle TN (Irrigated)	Spring Hill	5/27/2009	11/6/2009	175000	Maury Silt Loam
Middle TN (Non Irrigated)	" "	5/26/2009	11/6/2009	175000	" " "
Conventional Maturity Groups IV and V					
Highland Rim	Springfield	5/19/2009	10/21/2009	175000	Sango Silt Loam
Knoxville	Knoxville	5/13/2009	10/21/2009	175000	Sequatchie Fine Sandy Loam
Milan (Irrigated)	Milan	5/22/2009	10/26/2009	175000	Loring, Henry Silt Loam
Milan (Non Irrigated)	" "	5/20/2009	10/26/2009	175000	Loring Silt Loam
Middle TN (Irrigated)	Spring Hill	5/27/2009	11/3/2009	175000	Maury Silt Loam
Middle TN (Non Irrigated)	" "	5/26/2009	11/6/2009	175000	" " "

Table 2. Mean yields † of eight Maturity Group III Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=5)	Knoxville	Spring Hill Non-Irr.	Springfield	Milan Irr.	Milan Non-Irr.
				bu/a			
Progeny	3909 RR	60 ± 1	73	53	47	71	55
Pioneer	93Y92 (RR)	59 ± 1	69	53	44	72	57
Asgrow	AG3803 (RR)	57 ± 1	70	55	42	66	52
NK	S 39-A3 Brand (RR)	57 ± 1	75	51	44	66	49
Southern Cross	Malachi (RR2Y)	57 ± 1	70	44	38	72	60
Armor	ARX 938 (RR/STS)	53 ± 1	67	44	45	69	42
Hornbeck	HBK R 3927 (RR)	52 ± 1	52	55	49	62	42
KS	KS 3406RR	48 ± 1	63	43	37	57	42
Average (bu/a)		**55**	**66**	**51**	**45**	**67**	**49**
L.S.D.$_{.05}$ (bu/a)		**4**	**13**	**8**	**8**	**9**	**8**
C.V. (%)		**9.9**	**11.2**	**9.4**	**10.5**	**7.6**	**10.1**

Table 3. Mean yields † and agronomic characteristics of eight Maturity Group III Roundup Ready soybean varieties evaluated in five environments in Tennessee during 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=5)	Moisture § (n=5)	Lodging (n=4)	Height (n=5)	Maturity (n=5)	Shattering (n=3)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	Score		%	%	%	0 - 9	index
Progeny	3909 RR	60 ± 1	17.4	2.0	37	125	1.0	2.7	38.7	21.9	8.3	1.3	1.9
Pioneer	93Y92 (RR)	59 ± 1	16.9	1.8	36	123	1.0	2.8	39.4	22.7	26.7	3.0	15.6
Asgrow	AG3803 (RR)	57 ± 1	16.6	1.8	35	122	1.0	1.8	39.7	22.6	5.0	1.3	1.1
NK	S 39-A3 Brand (RR)	57 ± 1	16.4	1.5	35	122	1.0	2.3	38.8	22.4	25.7	2.7	11.0
Southern Cross	Malachi (RR2Y)	57 ± 1	16.1	1.8	36	122	1.0	2.2	39.4	21.4	70.0	5.0	39.6
Armor	ARX 938 (RR/STS)	53 ± 1	17.0	1.6	32	124	1.1	2.7	39.9	22.0	0.7	0.3	0.1
Hornbeck	HBK R 3927 (RR)	52 ± 1	16.7	2.9	46	126	1.0	2.2	41.0	21.8	46.7	5.8	35.4
KS	KS 3406RR	48 ± 1	17.1	1.4	33	119	1.0	2.5	40.3	22.9	0.7	0.3	0.1
	Average	**55**	**16.8**	**1.8**	**36**	**123**	**1.0**	**2.4**	**39.7**	**22.2**	**23.0**	**2.5**	**13.1**

† All yields are adjusted to 13% moisture. ‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name. § Average moisture at harvest.

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 8/26/09.

Table 4. Mean yields † and SDS ratings of eight Maturity Group III Roundup Ready soybean varieties evaluated at Knoxville, Tennessee during 2009.

Brand	Variety ‡	Avg. Yield Knoxville	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
			%	0 - 9	index
Armor	ARX 938 (RR/STS)	67	0.7	0.3	0.1
KS	KS 3406RR	63	0.7	0.3	0.1
Asgrow	AG3803 (RR)	70	5.0	1.3	1.1
Progeny	3909 RR	73	8.3	1.3	1.9
NK	S 39-A3 Brand (RR)	75	25.7	2.7	11.0
Pioneer	93Y92 (RR)	69	26.7	3.0	15.6
Hornbeck	HBK R 3927 (RR)	52	46.7	5.8	35.4
Southern Cross	Malachi (RR2Y)	70	70.0	5.0	39.6
Average		**66**	**23.0**	**2.5**	**13.1**
L.S.D.$_{.05}$ (bu/a)		**13**			
C.V. (%)		**11.2**			

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 8/26/09.

Varieties with a higher DX value are more susceptible to SDS.

Table 5. Mean yields † of four Maturity Group III Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2008 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=10)	Knoxville	Spring Hill	Springfield	Milan	
				Non-Irr.		Irr.	Non-Irr.
		----------bu/a----------					
NK	S 39-A3 Brand (RR)	54 ± 1	73	41	46	63	47
Armor	ARX 938 (RR/STS)	51 ± 1	66	35	51	65	40
Hornbeck	HBK R 3927 (RR)	49 ± 1	53	42	51	59	40
KS	KS 3406RR	44 ± 1	55	34	39	55	39
Average (bu/a)		**50**	**62**	**38**	**47**	**61**	**42**
L.S.D.$_{.05}$ (bu/a)		**3**	**9**	**5**	**7**	**7**	**6**
C.V. (%)		**9.2**	**9.5**	**9.9**	**9.2**	**7.4**	**9.6**

† All yields are adjusted to 13% moisture.

‡ If a RR appears inside parentheses (RR), then it is not part of the variety name.

Table 6. Mean yields † and agronomic characteristics of four Maturity Group III Roundup Ready soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2008 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=10)	Moisture § (n=10)	Lodging (n=6)	Height (n=10)	Maturity (n=10)	Shattering (n=6)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)
		bu/a	%	Score	in.	DAP	-------Score--------		%	%
NK	S 39-A3 Brand (RR)	54 ± 1	14.1	1.8	34	121	1.1	2.5	38.1	22.5
Armor	ARX 938 (RR/STS)	51 ± 1	14.3	1.5	31	121	1.2	2.8	38.9	22.0
Hornbeck	HBK R 3927 (RR)	49 ± 1	14.4	2.6	43	125	1.0	2.1	40.2	22.1
KS	KS 3406RR	44 ± 1	14.3	1.5	32	118	1.2	2.8	40.1	22.7
	Average	**50**	**14.3**	**1.8**	**35**	**121**	**1.1**	**2.5**	**39.3**	**22.3**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 7. Yields † of 10 Maturity Group III Roundup Ready soybean varieties in nine County Standard Tests in Tennessee during 2009.

MS	Brand/Variety	Avg. Yield	Moisture ‡	Coffee	Dyer	Franklin	Gibson	Lake	Madison	Milan REC Gibson	Obion	Weakley
		bu/a	%	5/14 §	5/19	5/19	6/29	5/22	4/24	5/22	5/18	5/23
A	Pioneer 93Y92	66.4	11.6	75.6	61.6	48.1	67.1	66.2	79.8	67.9	69.9	61.0
A	Asgrow AG3803	65.6	11.8	73.0	68.7	52.6	58.4	69.2	68.1	73.1	69.9	57.8
A	*NK S39-A3 Brand	65.6	11.8	76.3	62.2	49.0	50.1	74.9	79.7	67.3	71.0	59.8
AB	*Crow's C3817R (RR/STS)	63.4	12.0	72.4	66.1	42.3	51.0	71.2	81.8	60.7	69.3	56.3
AB	Pioneer 93Y90	63.3	12.0	69.7	63.2	51.8	62.4	68.4	58.1	68.2	68.4	59.7
AB	Croplan RC3897	62.5	12.0	70.7	64.1	50.0	54.7	70.0	62.7	63.6	69.5	57.2
AB	USG 73H77 (RR/STS)	62.1	11.8	72.2	63.6	50.2	40.4	65.2	82.3	59.0	71.0	55.0
AB	Pioneer 93Y90 (Cruiser)	62.1	11.8	73.5	66.2	49.3	45.5	65.8	61.5	64.6	70.8	61.5
B	Southern Cross Lucas RR	60.8	11.7	66.6	62.1	46.9	62.2	61.5	64.7	63.7	64.1	55.2
B	Progeny 3906 RR	60.3	11.8	67.0	62.3	47.1	47.2	68.9	59.7	61.3	69.3	60.1
	Average (bu/a)	**63.2**	**11.8**	**71.7**	**64.0**	**48.7**	**53.9**	**68.1**	**69.8**	**64.9**	**69.3**	**58.4**

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

Each variety was evaluated in a large strip-plot at each loction, thus each county test was considered as one replication of the test in calculating the average yield and in conducting the statistical analysis to determine significant differences (MS).

Variety denoted with an asterisk (*) was in the top performing group in 2008 and/or 2007.

MS= Varieties with any MS letter in common are not statistically different at the 5% level of probability.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 8. Yields † and disease ratings § of nine Maturity Group III Roundup Ready soybean varieties evaluated in Tennesse County Standard Tests during 2009.

MS	Brand/Variety	CST Avg. Yield (n=9)	Moisture ‡	Research and Education Center at Milan					SCN		
				SDS	Frogeye	Anthracnose	Sprayed ¶ Yield	Unsprayed Yield	Race 2	Race 3	Race 14
		bu/a	%	2007 / 08 / 2009	2007 / 08 / 2009	2008 / 09	bu/a	bu/a	2009	2009	2009
A	Pioneer 93Y92	66.4	11.6	/ / 2.0	/ / 0.0	/ 8.7	49.9	41.4	S	S	S
A	Asgrow AG3803	65.6	11.8	/ / 2.3	/ / 0.7	/ 10.0	45.0	35.5	S	S	S
A	*NK S39-A3 Brand	65.6	11.8	/ 0.0 / 1.7	/ 4.3 / 2.3	5.3 / 8.3	44.9	36.2	S	S	MR
AB	*Crow's C3817R (RR/STS)	63.4	12.0	/ / 2.3	/ / 1.3	/ 9.0	51.8	41.9	S	S	S
AB	Pioneer 93Y90	63.3	12.0	/ / 2.7	/ / 2.0	/ 9.3	52.1	37.3	S	S	MR
AB	Croplan RC3897	62.5	12.0	/ / 2.3	/ / 2.3	/ 9.0	42.2	35.5	S	S	S
AB	USG 73H77 (RR/STS)	62.1	11.8	/ / 3.7	/ / 1.3	/ 9.3	44.8	30.2	S	S	S
B	Southern Cross Lucas RR	60.8	11.7	/ / 2.3	/ / 0.3	/ 9.7	39.8	34.5	S	S	S
B	Progeny 3906 RR	60.3	11.8	/ / 2.0	/ / 1.7	/ 10.0	46.7	32.6	S	S	S
	Average (bu/a)	**63.2**	**11.8**				**45.9**	**35.5**			

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Disease ratings for SDS, Frogeye Leaf Spot, and Anthracnose are from 0-10, where 0=no disease & 10=maximum level of disease or plant death. SDS = Sudden Death Syndrome.

¶ Sprayed plots at Milan treated with Headline @ 6 oz./Acre + 0.25% Induce at 20 gpa at R3 growth stage.

Disease ratings compiled by Dr. Melvin Newman from replicated plots at the Research and Education Center at Milan.

SCN ratings; S= susceptible, MS = moderately susceptible, MR = moderately resistant R = resistant. (Race 2 SCN HG Type 1.2.5.7)

SCN Greenhouse Ratings compiled by Dr. Pat Donald, Research Plant Path., USDA-ARS, West TN REC.

MS= Varieties with one or more letters in common are not statistically different at the .05 level of probability.

Varieties denoted with an asterisk (*) were in the top performing group in 2008.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops.

Table 9. Overall average yields † and moistures ‡ of three Maturity Group III Roundup Ready soybean varieties evaluated in County Standard Tests (n=9) and Research and Education Centers (n=5) in Tennessee during 2009.

		Averages of CST & REC Tests		County Standard Trials		Research and Education Center Trials	
Brand	Variety	Avg. Yield	Moisture	Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%	bu/a	%
Pioneer	93Y92 (RR)	63	14.2	66	11.6	59	16.9
Asgrow	AG3803 (RR)	61	14.2	66	11.8	57	16.6
NK	S 39-A3 Brand (RR)	61	14.1	66	11.8	57	16.4
Average (bu/a)		**62**	**14.2**	**66**	**11.7**	**58**	**16.6**

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

Table 10. Mean yields † of 36 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Knoxville	Spring Hill		Springfield	Milan		Ames
				Irr.	Non-Irr.		Irr.	Non-Irr.	
		---bu/a---							
Steyer	4430 RR	60 ± 1	77	51	47	62	63	61	63
Southern Cross	Caleb (RR/STS)	60 ± 1	76	55	48	61	63	58	61
USG	74B58 (RR/STS)	60 ± 1	78	50	47	60	70	62	54
Trisler Seed	Trisoy 4586RR (CN) STS	60 ± 1	76	51	47	59	67	58	59
Schillinger Seed	458 RCS	58 ± 1	81	40	48	53	64	59	59
Delta Grow	4470 RR/STS	57 ± 1	73	46	37	55	65	58	68
Armor	ARX 0431 (RR)	57 ± 1	80	46	51	51	57	57	56
Asgrow	AG4303 (RR)	57 ± 1	77	45	45	58	52	61	59
Terral-REV Brand	45R10 (RR)	56 ± 1	78	44	47	50	62	60	53
Dyna-Gro	36C44 (RR/STS)	55 ± 1	74	44	36	52	62	58	60
Dyna-Gro	37A44 (RR)	55 ± 1	77	48	47	56	56	54	49
Armor	42-M1 (RR)	55 ± 1	76	49	44	56	59	45	58
Southern Cross	Jericho (RR)	55 ± 1	69	52	49	58	52	52	53
Channel	C 4517R (STS) Brand	55 ± 1	77	43	41	56	57	55	56
Steyer	4210 RR	55 ± 1	79	49	44	59	56	45	51
Armor	ARX 0432 (RR)	54 ± 1	83	48	42	48	57	55	48
Armor	44-K6 (RR/STS)	54 ± 1	71	49	43	56	52	53	55
USG	74A39 (RR)	54 ± 1	73	42	49	50	58	57	49
Progeny	4508 RR	54 ± 1	74	47	47	54	54	44	54
USG	74A45 (RR)	53 ± 1	68	48	52	57	53	51	41
Dyna-Gro	V42N9 (RR/STS)	52 ± 1	71	46	44	55	54	47	48
Dairyland	4300 RR	52 ± 1	74	45	43	52	59	55	37
Pioneer	94Y20 (RR)	52 ± 1	74	45	50	53	46	51	40
Delta Grow	4150 RR	52 ± 1	74	41	43	53	53	51	46
Pioneer	94Y01 (RR)	51 ± 1	77	44	45	55	51	51	36
Southern Cross	Lot (RR/STS)	51 ± 1	71	47	48	53	49	49	36
Morsoy	RT 4485N (RR)	50 ± 1	70	42	41	56	54	49	40
Asgrow	AG4005 (RR)	50 ± 1	75	39	40	44	52	54	48
Dyna-Gro	V45N9 (RR)	50 ± 1	65	45	47	52	54	46	40
Hornbeck	HBK R 4527 (RR)	50 ± 1	57	45	49	51	54	46	47
Croplan	RC 4417 RR	50 ± 1	70	41	42	58	46	49	40
Dairyland	4500 RR STS	50 ± 1	72	44	38	48	54	48	43
Croplan	RC 4207 RR (STS)	48 ± 1	76	47	39	52	51	38	35
Progeny	4206 RR	48 ± 1	67	43	43	51	51	44	35
USG	74C36 (RR)	48 ± 1	57	49	40	44	46	53	45
Schillinger Seed	457 RC	45 ± 1	61	38	43	54	43	41	36
Average (bu/a)		**53**	**73**	**46**	**45**	**54**	**55**	**52**	**49**
L.S.D.$_{.05}$ (bu/a)		**3**	**7**	**6**	**10**	**5**	**9**	**9**	**10**
C.V. (%)		**9.5**	**5.9**	**9.4**	**13.5**	**5.7**	**10.0**	**10.2**	**12.8**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 11. Mean yields † and agronomic characteristics of 36 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=6)	Height (n=7)	Maturity (n=4)	Shattering (n=2)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	-------Score-------		%	%	%	0 - 9	index
Steyer	4430 RR	60 ± 1	14.5	1.1	33	126	1.0	2.2	39.0	23.1	17.0	1.0	1.9
Southern Cross	Caleb (RR/STS)	60 ± 1	14.6	1.3	33	125	1.0	2.3	38.5	23.2	45.0	2.0	10.0
USG	74B58 (RR/STS)	60 ± 1	14.5	1.4	33	125	1.0	2.5	39.0	23.0	31.7	1.3	4.6
Trisler Seed	Trisoy 4586RR (CN) STS	60 ± 1	14.5	1.2	32	126	1.0	2.3	38.6	23.2	36.7	1.7	10.0
Schillinger Seed	458 RCS	58 ± 1	14.6	1.3	39	130	1.0	2.8	40.3	21.8	56.7	1.3	8.1
Delta Grow	4470 RR/STS	57 ± 1	14.5	1.2	33	125	1.0	2.3	38.8	23.0	40.0	2.0	11.1
Armor	ARX 0431 (RR)	57 ± 1	14.5	1.3	37	125	1.1	2.5	39.5	22.8	56.7	1.3	8.5
Asgrow	AG4303 (RR)	57 ± 1	14.4	1.2	32	125	1.0	2.7	39.1	22.9	10.0	0.7	1.1
Terral-REV Brand	45R10 (RR)	56 ± 1	14.5	1.8	44	128	1.0	2.2	39.0	22.8	50.0	1.7	12.2
Dyna-Gro	36C44 (RR/STS)	55 ± 1	14.5	1.2	32	126	1.1	2.5	39.2	22.8	23.7	1.7	7.4
Dyna-Gro	37A44 (RR)	55 ± 1	14.3	1.8	43	126	1.0	1.8	39.3	22.5	63.3	1.3	10.0
Armor	42-M1 (RR)	55 ± 1	14.5	1.2	35	126	1.0	3.2	38.9	23.2	48.3	1.7	10.2
Southern Cross	Jericho (RR)	55 ± 1	14.5	1.4	35	123	1.0	3.3	38.1	23.6	63.3	3.0	23.0
Channel	C 4517R (STS) Brand	55 ± 1	14.5	1.9	42	129	1.0	2.3	39.3	22.4	40.0	1.3	6.7
Steyer	4210 RR	55 ± 1	14.4	1.3	34	124	1.1	2.8	38.2	23.1	22.0	1.7	4.9
Armor	ARX 0432 (RR)	54 ± 1	14.6	1.4	36	124	1.0	2.5	39.1	22.9	43.3	1.7	9.3
Armor	44-K6 (RR/STS)	54 ± 1	14.6	1.2	33	125	1.1	2.8	39.2	22.9	25.0	1.3	4.6
USG	74A39 (RR)	54 ± 1	14.3	1.4	37	125	1.0	2.3	39.7	22.8	56.7	1.7	10.7
Progeny	4508 RR	54 ± 1	14.5	1.5	40	127	1.0	2.0	38.1	23.6	65.0	2.2	18.1
USG	74A45 (RR)	53 ± 1	14.4	2.0	44	125	1.1	2.0	39.4	22.1	80.0	3.3	30.4
Dyna-Gro	V42N9 (RR/STS)	52 ± 1	14.3	1.3	35	124	1.0	3.5	38.4	23.2	30.3	2.0	9.5
Dairyland	4300 RR	52 ± 1	14.4	2.0	37	126	1.0	2.8	39.7	22.6	48.3	1.7	10.2
Pioneer	94Y20 (RR)	52 ± 1	14.7	1.9	39	125	1.1	3.0	40.0	22.9	22.3	1.3	4.7
Delta Grow	4150 RR	52 ± 1	14.1	1.4	38	125	1.0	2.2	40.2	22.4	31.7	1.3	6.1
Pioneer	94Y01 (RR)	51 ± 1	14.5	1.7	36	124	1.0	2.2	38.5	23.4	34.0	1.7	7.5
Southern Cross	Lot (RR/STS)	51 ± 1	14.1	1.5	35	125	1.1	3.2	38.9	23.9	5.0	1.0	0.6
Morsoy	RT 4485N (RR)	50 ± 1	14.3	1.6	42	128	1.0	2.3	39.1	22.2	66.7	2.0	16.3
Asgrow	AG4005 (RR)	50 ± 1	14.2	1.1	35	125	1.0	2.7	40.0	22.4	28.3	1.7	8.3
Dyna-Gro	V45N9 (RR)	50 ± 1	14.0	1.3	38	127	1.0	3.0	37.6	24.0	53.3	1.7	10.4
Hornbeck	HBK R 4527 (RR)	50 ± 1	14.8	2.2	44	129	1.0	2.0	40.8	21.2	73.3	3.3	30.0
Croplan	RC 4417 RR	50 ± 1	14.4	2.0	42	127	1.1	2.3	39.4	22.6	71.7	2.3	20.2

Table 11 (continued)

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=6)	Height (n=7)	Maturity (n=4)	Shattering (n=2)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	-------Score-------		%	%	%	0 - 9	index
Dairyland	4500 RR STS	50 ± 1	14.3	1.7	38	125	1.0	2.5	38.8	23.1	63.3	2.0	17.0
Croplan	RC 4207 RR (STS)	48 ± 1	14.2	1.6	35	125	1.0	3.0	39.1	23.3	7.0	1.3	1.1
Progeny	4206 RR	48 ± 1	14.1	1.7	35	126	1.1	2.7	39.0	23.5	26.7	1.7	6.7
USG	74C36 (RR)	48 ± 1	14.2	2.4	39	126	1.3	2.2	39.3	22.6	50.0	2.3	17.4
Schillinger Seed	457 RC	45 ± 1	14.3	2.2	44	128	1.0	2.3	39.2	23.4	60.0	2.3	16.3
	Average	**53**	**14.4**	**1.5**	**37**	**126**	**1.0**	**2.5**	**39.1**	**22.9**	**43.0**	**1.8**	**10.7**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 8/26/09.

Table 12. Mean yields † and SDS Ratings of 36 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated at Knoxville, Tennessee during 2009.

			SDS		
Brand	Variety ‡	Avg. Yield Knoxville	DI (n=1)	DS (n=1)	DX (n=1)
			%	0 - 9	index
Southern Cross	Lot (RR/STS)	71	5.0	1.0	0.6
Asgrow	AG4303 (RR)	77	10.0	0.7	1.1
Croplan	RC 4207 RR (STS)	76	7.0	1.3	1.1
Steyer	4430 RR	77	17.0	1.0	1.9
Armor	44-K6 (RR/STS)	71	25.0	1.3	4.6
USG	74B58 (RR/STS)	78	31.7	1.3	4.6
Pioneer	94Y20 (RR)	74	22.3	1.3	4.7
Steyer	4210 RR	79	22.0	1.7	4.9
Delta Grow	4150 RR	74	31.7	1.3	6.1
Channel	C 4517R (STS) Brand	77	40.0	1.3	6.7
Progeny	4206 RR	67	26.7	1.7	6.7
Dyna-Gro	36C44 (RR/STS)	74	23.7	1.7	7.4
Pioneer	94Y01 (RR)	77	34.0	1.7	7.5
Schillinger Seed	458 RCS	81	56.7	1.3	8.1
Asgrow	AG4005 (RR)	75	28.3	1.7	8.3
Armor	ARX 0431 (RR)	80	56.7	1.3	8.5
Armor	ARX 0432 (RR)	83	43.3	1.7	9.3
Dyna-Gro	V42N9 (RR/STS)	71	30.3	2.0	9.5
Dyna-Gro	37A44 (RR)	77	63.3	1.3	10.0
Southern Cross	Caleb (RR/STS)	76	45.0	2.0	10.0
Trisler Seed	Trisoy 4586RR (CN) STS	76	36.7	1.7	10.0
Armor	42-M1 (RR)	76	48.3	1.7	10.2
Dairyland	4300 RR	74	48.3	1.7	10.2
Dyna-Gro	V45N9 (RR)	65	53.3	1.7	10.4
USG	74A39 (RR)	73	56.7	1.7	10.7
Delta Grow	4470 RR/STS	73	40.0	2.0	11.1
Terral-REV Brand	45R10 (RR)	78	50.0	1.7	12.2
Morsoy	RT 4485N (RR)	70	66.7	2.0	16.3
Schillinger Seed	457 RC	61	60.0	2.3	16.3
Dairyland	4500 RR STS	72	63.3	2.0	17.0
USG	74C36 (RR)	57	50.0	2.3	17.4
Progeny	4508 RR	74	65.0	2.2	18.1
Croplan	RC 4417 RR	70	71.7	2.3	20.2
Southern Cross	Jericho (RR)	69	63.3	3.0	23.0
Hornbeck	HBK R 4527 (RR)	57	73.3	3.3	30.0
USG	74A45 (RR)	68	80.0	3.3	30.4
Average (bu/a)		**73**	**43.0**	**1.8**	**10.7**
L.S.D.$_{.05}$ (bu/a)		**7**			
C.V. (%)		**5.9**			

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size on 8/26/09.

Varieties with a higher DX value are more susceptible to SDS.

Table 13. Mean yields † of 21 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2008 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Knoxville	Spring Hill		Springfield	Milan		Ames
				Irr.	Non-Irr.		Irr.	Non-Irr.	
		bu/a							
Steyer	4430 RR	54 ± 1	74	48	38	53	64	52	53
Southern Cross	Caleb (RR/STS)	54 ± 1	74	51	35	53	65	50	52
Trisler Seed	Trisoy 4586RR (CN) STS	54 ± 1	72	50	37	50	63	49	57
Armor	42-M1 (RR)	53 ± 1	74	48	37	52	60	45	53
Asgrow	AG4303 (RR)	52 ± 1	73	47	34	48	58	52	54
Dyna-Gro	36C44 (RR/STS)	52 ± 1	73	48	29	46	63	50	57
Dyna-Gro	37A44 (RR)	52 ± 1	72	48	39	52	57	46	51
Delta Grow	4470 RR/STS	52 ± 1	72	49	32	48	62	48	53
USG	74A45 (RR)	51 ± 1	67	47	42	54	56	45	48
Progeny	4508 RR	51 ± 1	73	44	38	51	58	43	50
Hornbeck	HBK R 4527 (RR)	51 ± 1	63	49	44	49	60	42	49
Morsoy	RT 4485N (RR)	51 ± 1	71	46	35	52	61	43	46
Dairyland	4300 RR	50 ± 1	70	47	35	48	61	48	43
Armor	44-K6 (RR/STS)	50 ± 1	70	48	32	45	58	47	49
Dairyland	4500 RR STS	50 ± 1	73	45	31	47	60	46	45
Delta Grow	4150 RR	49 ± 1	73	40	36	49	54	44	46
Dyna-Gro	V42N9 (RR/STS)	49 ± 1	67	44	34	48	58	43	46
Pioneer	94Y20 (RR)	48 ± 1	71	42	37	48	56	46	41
Croplan	RC 4417 RR	48 ± 1	69	43	33	51	53	45	42
Schillinger Seed	457 RC	47 ± 1	65	39	39	53	52	42	40
Progeny	4206 RR	46 ± 1	66	42	31	48	55	42	39
Average (bu/a)		**51**	**71**	**46**	**36**	**50**	**59**	**46**	**48**
L.S.D.$_{.05}$ (bu/a)		**3**	**7**	**7**	**7**	**5**	**7**	**6**	**8**
C.V. (%)		**9.3**	**6.4**	**11.4**	**14.4**	**6.6**	**8.1**	**9.1**	**10.9**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 14. Mean yields † and agronomic characteristics of 21 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2008 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Moisture § (n=14)	Lodging (n=10)	Height (n=14)	Maturity (n=11)	Shattering (n=6)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)
		bu/a	%	Score	in.	DAP	-------Score-------		%	%
Steyer	4430 RR	54 ± 1	13.4	1.1	30	132	1.2	1.9	38.3	23.0
Southern Cross	Caleb (RR/STS)	54 ± 1	13.4	1.2	31	131	1.3	2.0	37.8	23.0
Trisler Seed	Trisoy 4586RR (CN)	54 ± 1	13.4	1.2	31	130	1.3	2.1	38.3	22.8
Armor	42-M1 (RR)	53 ± 1	13.5	1.3	32	131	1.1	2.7	38.3	23.0
Asgrow	AG4303 (RR)	52 ± 1	13.3	1.2	30	130	1.3	2.3	38.3	22.8
Dyna-Gro	36C44 (RR/STS)	52 ± 1	13.3	1.2	31	130	1.3	2.3	38.4	22.8
Dyna-Gro	37A44 (RR)	52 ± 1	13.6	1.8	40	131	1.2	1.9	38.5	22.7
Delta Grow	4470 RR/STS	52 ± 1	13.5	1.2	31	133	1.2	2.1	38.1	23.0
USG	74A45 (RR)	51 ± 1	13.4	2.0	42	129	1.3	1.8	38.6	22.5
Progeny	4508 RR	51 ± 1	13.5	1.6	37	132	1.2	1.8	37.0	24.0
Hornbeck	HBK R 4527 (RR)	51 ± 1	14.0	2.1	41	133	1.0	1.8	40.5	21.3
Morsoy	RT 4485N (RR)	51 ± 1	13.5	1.7	40	132	1.2	1.9	38.6	22.5
Dairyland	4300 RR	50 ± 1	13.2	1.9	34	131	1.2	2.2	39.5	22.3
Armor	44-K6 (RR/STS)	50 ± 1	13.5	1.3	31	129	1.4	2.4	38.4	22.7
Dairyland	4500 RR STS	50 ± 1	13.4	1.9	36	131	1.2	2.2	38.4	23.0
Delta Grow	4150 RR	49 ± 1	13.3	1.5	36	131	1.1	2.0	39.8	22.3
Dyna-Gro	V42N9 (RR/STS)	49 ± 1	13.3	1.3	33	129	1.3	2.9	37.8	22.9
Pioneer	94Y20 (RR)	48 ± 1	13.5	2.0	36	130	1.3	2.5	39.0	23.0
Croplan	RC 4417 RR	48 ± 1	13.5	2.0	40	131	1.4	2.0	38.7	22.7
Schillinger Seed	457 RC	47 ± 1	13.5	2.2	42	133	1.2	2.1	38.0	23.6
Progeny	4206 RR	46 ± 1	13.2	1.5	33	131	1.3	2.4	38.1	23.4
	Average	**51**	**13.4**	**1.6**	**35**	**131**	**1.2**	**2.2**	**38.5**	**22.8**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 15. Mean yields † of 10 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2007 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=15)	Knoxville	Springfield	Milan		Ames
					Irr.	Non-Irr.	
		----------bu/a----------					
Southern Cross	Caleb (RR/STS)	51 ± 1	60	42	71	39	44
Delta Grow	4470 RR/STS	51 ± 1	61	38	67	42	46
Steyer	4430 RR	51 ± 1	61	41	66	43	43
Morsoy	RT 4485N (RR)	48 ± 1	59	43	62	37	39
Dyna-Gro	37A44 (RR)	48 ± 1	60	42	60	37	42
Dairyland	4300 RR	47 ± 1	59	37	67	38	35
USG	74A45 (RR)	47 ± 1	56	43	60	36	41
Delta Grow	4150 RR	47 ± 1	61	39	59	36	39
Croplan	RC 4417 RR	47 ± 1	58	42	61	36	37
Schillinger Seed	457 RC	45 ± 1	55	42	57	35	36
Average (bu/a)		**48**	**59**	**41**	**63**	**38**	**40**
L.S.D.$_{.05}$ (bu/a)		**3**	**6**	**4**	**8**	**6**	**7**
C.V. (%)		**9.2**	**7.2**	**7.7**	**8.7**	**11.3**	**11.8**

Table 16. Mean yields † and agronomic characteristics of 10 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2007 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=15)	Moisture § (n=15)	Lodging (n=8)	Height (n=14)	Maturity (n=11)	Shattering (n=4)	Leaf Retention (n=2)	Seed Quality (n=4)	Protein (n=4)	Oil (n=4)
		bu/a	%	Score	in.	DAP	----------Score----------			%	%
Southern Cross	Caleb (RR/STS)	51 ± 1	13.4	1.5	31	130	1.0	2.2	2.2	39.0	22.1
Delta Grow	4470 RR/STS	51 ± 1	13.4	1.4	32	131	1.0	1.7	2.2	39.3	21.8
Steyer	4430 RR	51 ± 1	13.3	1.5	31	130	1.0	1.8	2.0	39.0	21.9
Morsoy	RT 4485N (RR)	48 ± 1	13.6	2.1	41	131	1.0	2.5	2.0	39.2	21.8
Dyna-Gro	37A44 (RR)	48 ± 1	14.5	2.0	40	131	1.0	2.6	2.4	39.4	21.8
Dairyland	4300 RR	47 ± 1	13.1	2.3	35	129	1.0	1.7	2.0	39.7	21.9
USG	74A45 (RR)	47 ± 1	13.5	2.1	42	129	1.0	1.8	2.2	39.7	21.6
Delta Grow	4150 RR	47 ± 1	13.3	1.8	36	131	1.0	2.3	2.0	41.0	21.0
Croplan	RC 4417 RR	47 ± 1	13.8	2.1	40	128	1.0	3.0	2.3	39.8	22.1
Schillinger Seed	457 RC	45 ± 1	14.3	2.4	42	132	1.0	3.0	3.0	39.1	22.8
	Average	**48**	**13.6**	**1.9**	**37**	**130**	**1.0**	**2.3**	**2.2**	**39.5**	**21.9**

† All yields are adjusted to 13% moisture. ‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name. § Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP). Protein & Oil on dry weight basis.

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Leaf Retention (at harvest) = 1 to 5 scale; where 1 = < 5% of plants holding leaves at harvest maturity; 5=95+% of plants holding leaves and green stems at harvest maturity.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Table 17. Yields † of 23 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties in 11 County Standard Tests in Tennessee and Kentucky during 2009.

MS	Brand/Variety	Avg. Yield	Moist‡	Coffee	Dyer	Franklin	(KY) Fulton	Giles	Henry	Lake	Lawrence	(KY) McCracken	Obion	Weakley
		bu/a	**%**	**5/14 §**	**6/3**	**5/19**	**6/26**	**6/5**	**6/22**	**5/20**	**6/6**	**6/13**	**5/18**	**5/23**
A	USG 74B58 (RR/STS)	62.5	11.5	75.5	70.5	42.3	31.7	65.6	79.8	70.5	55.2	62.1	73.2	61.6
A	Asgrow AG4303	62.2	11.3	78.4	70.3	42.7	40.5	66.0	69.7	68.0	55.3	61.5	69.4	62.6
AB	Stine 4392 (RR/STS)	61.4	11.3	76.4	71.4	45.2	34.7	64.3	66.0	62.4	58.3	60.1	72.0	64.5
AB	Southern Cross Caleb (RR/STS)	61.3	12.0	68.6	68.1	37.9	38.3	65.4	77.2	68.7	53.9	57.0	74.6	64.3
ABC	Dyna-Gro V42N9RS (RR/STS)	61.0	11.2	76.1	70.5	47.7	37.0	66.4	62.7	65.8	49.3	62.6	71.9	61.1
ABCD	Armor 44-K6 (RR/STS)	60.8	11.7	67.6	66.3	43.4	37.8	65.8	72.5	67.6	53.4	57.9	70.9	65.2
ABCD	Steyer 4430 RR	60.7	11.2	74.8	69.9	40.9	36.9	66.9	64.2	64.4	58.8	62.4	71.7	57.0
ABCD	*Armor 42-M1 (RR)	60.5	11.6	71.2	74.8	42.6	40.0	63.4	66.6	69.0	47.0	62.0	70.6	57.9
ABCD	**Croplan RC4455	60.5	11.0	64.6	67.7	48.3	34.9	61.9	73.2	64.8	52.3	70.5	69.7	57.3
ABCD	Trisoy 4275RR(CN)STS	60.4	11.3	70.2	64.0	50.8	40.3	60.4	69.7	67.0	52.0	59.2	72.7	58.5
ABCDE	Schillinger 458	59.7	11.7	67.5	68.2	42.0	40.6	64.0	73.8	63.2	52.5	62.3	66.5	56.4
ABCDE	Pioneer 94Y20 (RR)	59.7	11.3	74.8	63.8	49.2	37.4	61.7	69.1	61.8	55.1	51.8	74.3	57.4
ABCDE	Trisoy 4586RR(CN)STS	59.5	11.3	75.8	66.8	41.1	32.2	62.0	64.3	67.7	52.8	56.4	69.8	65.6
BCDEF	Southern Cross Lot (RR/STS)	59.1	11.2	69.5	65.2	40.4	34.9	58.0	69.0	61.9	59.9	54.9	69.2	66.8
BCDEF	Steyer 4210 RR	58.9	11.5	74.3	65.2	38.6	36.2	63.5	70.4	66.9	51.0	54.2	66.8	60.9
BCDEF	Dairyland 4300 RR	58.8	11.5	67.0	72.5	40.8	38.7	63.0	67.9	63.0	43.9	54.6	71.8	63.2
BCDEF	Dyna-Gro 37A44 (RR)	58.7	11.6	60.3	64.8	42.8	38.7	65.2	72.8	61.2	51.3	65.0	70.4	52.9
CDEF	Asgrow AG4005	58.2	11.1	77.6	63.2	40.9	39.3	60.4	66.3	61.7	50.6	53.4	68.8	58.1
CDEF	Dairyland 4500RS (RR/STS)	58.1	11.4	62.5	68.4	38.7	42.3	59.0	72.1	57.8	50.8	57.9	71.1	59.1
DEF	USG 74A45 (RR)	57.7	11.5	67.8	67.4	44.6	35.7	59.8	68.3	64.1	48.7	53.0	71.3	54.6
EF	Progeny 4508 RR	57.2	11.3	63.3	63.6	41.5	37.6	63.6	75.9	58.7	48.1	54.2	66.5	55.8
EF	Croplan RC4417	57.1	11.8	70.1	64.3	47.4	34.9	64.5	65.0	59.2	51.0	50.3	63.8	57.4
F	Schillinger 457RCP	56.3	11.7	60.2	64.7	47.1	37.3	57.8	66.8	60.9	48.9	58.0	64.0	53.6
	Average (bu/a)	**59.6**	**11.4**	**70.2**	**67.5**	**43.3**	**37.3**	**63.0**	**69.7**	**64.2**	**52.2**	**58.3**	**70.0**	**59.6**

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

Each variety was evaluated in a large strip-plot at each loction, thus each county test was considered as one replication of the test in calculating the average yield and in conducting the statistical analysis to determine significant differences (MS).

Variety denoted with an asterisk (*) and/or (**)were in the top performing group in 2008 and/or 2007, respectively.

MS= Varieties with any MS letter in common are not statistically different at the 5% level of probability.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 18. Yields † and disease ratings § of 23 early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in Tennessee County Standard Tests during 2009.

		CST Avg. Yield		Research and Education Center at Milan							
MS	Brand/Variety	(n=11)	Moisture ‡	SDS	Frogeye	Anthracnose	Sprayed ¶ Yield	Unsprayed Yield	SCN Race 2	SCN Race 3	SCN Race 14
		bu/a	%	2007 / 08 / 2009	2007 / 08 / 2009	2008 / 09	bu/a	bu/a	2009	2009	2009
A	USG 74B58 (RR/STS)	62.5	11.5	/ / 0.3	/ / 0.0	/ 10.0	58.5	59.3	S	S	S
A	Asgrow AG4303	62.2	11.3	/ / 0.7	/ / 0.0	/ 9.7	63.7	59.1	S	S	S
AB	Stine 4392 (RR/STS)	61.4	11.3	/ / 0.7	/ / 0.0	/ 7.7	66.6	62.8	S	S	S
AB	Southern Cross Caleb (RR/STS)	61.3	12.0	/ / 1.7	/ / 0.0	/ 9.3	65.3	59.9	S	S	S
ABC	Dyna-Gro V42N9RS (RR/STS)	61.0	11.2	/ / 2.0	/ / 0.0	/ 9.7	59.1	51.4	S	S	S
ABCD	Armor 44-K6 (RR/STS)	60.8	11.7	/ / 1.0	/ / 0.3	/ 10.0	65.0	56.3	MR	S	S
ABCD	Steyer 4430 RR	60.7	11.2	/ 0.0 / 1.0	/ 0.0 / 0.0	3.0 / 9.0	65.8	64.0	S	S	S
ABCD	*Armor 42-M1 (RR)	60.5	11.6	/ 0.3 / 4.3	/ 0.0 / 0.0	2.7 / 7.7	59.3	55.4	S	S	S
ABCD	**Croplan RC4455	60.5	11.0	/ / 3.3	/ / 1.0	/ 8.7	60.1	58.0	S	S	S
ABCD	Trisoy 4275RR(CN)STS	60.4	11.3	/ 0.0 / 1.3	/ 6.7 / 5.0	2.7 / 8.0	61.0	50.7	S	S	S
ABCDE	Schillinger 458	59.7	11.7	/ / 0.3	/ / 2.7	/ 9.0	63.2	58.7	S	S	S
ABCDE	Pioneer 94Y20 (RR)	59.7	11.3	/ / 0.7	/ / 1.3	/ 8.7	58.2	56.5	S	S	S
ABCDE	Trisoy 4586RR(CN)STS	59.5	11.3	/ / 0.7	/ / 0.3	/ 9.3	54.7	56.9	S	S	S
BCDEF	Southern Cross Lot (RR/STS)	59.1	11.2	/ / 1.3	/ / 0.7	/ 8.3	56.0	54.0	S	S	S
BCDEF	Steyer 4210 RR	58.9	11.5	/ / 2.3	/ / 0.0	/ 9.7	61.3	57.4	S	S	S
BCDEF	Dairyland 4300 RR	58.8	11.5	/ 0.0 / 2.0	/ 6.0 / 3.7	4.7 / 9.0	65.8	55.5	S	S	S
BCDEF	Dyna-Gro 37A44 (RR)	58.7	11.6	/ 1.3 / 2.0	/ 3.7 / 0.3	5.3 / 8.0	59.1	54.5	S	MR	S
CDEF	Asgrow AG4005	58.2	11.1	/ 0.0 / 0.7	/ 1.0 / 1.0	3.0 / 6.3	54.9	45.0	S	S	S
CDEF	Dairyland 4500RS (RR/STS)	58.1	11.4	/ / 1.3	/ / 3.0	/ 8.3	65.3	60.1	S	S	S
DEF	USG 74A45 (RR)	57.7	11.5	1.0 / 1.7 / 3.3	2.0 / 2.3 / 1.0	5.0 / 8.7	56.5	55.4	S	S	S
EF	Progeny 4508 RR	57.2	11.3	/ / 2.7	/ / 3.3	/ 9.3	60.5	55.0	S	S	S
EF	Croplan RC4417	57.1	11.8	/ / 2.7	/ / 0.0	/ 8.0	56.5	50.8	S	MR	S
F	Schillinger 457RCP	56.3	11.7	1.0 / 0.3 / 1.7	2.0 / 0.3 / 0.0	3.7 / 8.0	51.0	46.9	S	S	S
	Average (bu/a)	**59.6**	**11.4**				**60.3**	**55.8**			

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Disease ratings for SDS, Frogeye Leaf Spot, and Anthracnose are from 0-10, where 0=no disease & 10=maximum level of disease or plant death. SDS = Sudden Death Syndrome.

¶ Sprayed plots at Milan treated with Headline @ 6 oz./Acre + 0.25% Induce at 20 gpa at R3 growth stage.

Disease ratings compiled by Dr. Melvin Newman from replicated plots at the Research and Education Center at Milan.

SCN ratings; S= susceptible, MS = moderately susceptible, MR = moderately resistant R = resistant. (Race 2 SCN HG Type 1.2.5.7)

SCN Greenhouse Ratings compiled by Dr. Pat Donald, Research Plant Path., USDA-ARS, West TN REC.

MS= Varieties with one or more letters in common are not statistically different at the .05 level of probability.

Varieties denoted with an asterisk (*) and/or (**) were in the top performing group in 2008 and/or 2007, respectively.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops.

Table 19. Overall average yields † and moistures ‡ of 20 Early Maturity Group IV (4.0 - 4.5) Roundup Ready soybean varieties evaluated in County Standard Tests (n=11) and Research and Education Centers (n=7) in Tennessee during 2009.

		Averages of CST & REC Tests		County Standard Trials		Research and Education Center Trials	
Brand	Variety	Avg. Yield	Moisture	Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%	bu/a	%
USG	74B58 (RR/STS)	61	13.0	63	11.5	60	14.5
Southern Cross	Caleb (RR/STS)	61	13.3	61	12.0	60	14.6
Steyer	4430 RR	60	12.8	61	11.2	60	14.5
Trisler Seed	Trisoy 4586RR (CN) STS	60	12.9	60	11.3	60	14.5
Asgrow	AG4303 (RR)	60	12.9	62	11.3	57	14.4
Schillinger Seed	458 RCS	59	13.1	60	11.7	58	14.6
Armor	42-M1 (RR)	58	13.1	60	11.6	55	14.5
Armor	44-K6 (RR/STS)	57	13.1	61	11.7	54	14.6
Steyer	4210 RR	57	13.0	59	11.5	55	14.4
Dyna-Gro	37A44 (RR)	57	12.9	59	11.6	55	14.3
Dyna-Gro	V42N9 (RR/STS)	56	12.8	61	11.2	52	14.3
Pioneer	94Y20 (RR)	56	13.0	60	11.3	52	14.7
Progeny	4508 RR	56	12.9	57	11.3	54	14.5
Dairyland	4300 RR	55	12.9	59	11.5	52	14.4
USG	74A45 (RR)	55	12.9	58	11.5	53	14.4
Southern Cross	Lot (RR/STS)	55	12.7	59	11.2	51	14.1
Asgrow	AG4005 (RR)	54	12.7	58	11.1	50	14.2
Dairyland	4500 RR STS	54	12.8	58	11.4	50	14.3
Croplan	RC 4417 RR	54	13.1	57	11.8	50	14.4
Schillinger Seed	457 RC	51	13.0	56	11.7	45	14.3
Average (bu/a)		**57**	**12.9**	**59**	**11.5**	**54**	**14.4**

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

Table 20. Mean yields † of 78 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Knoxville	Spring Hill Irr.	Spring Hill Non-Irr.	Springfield	Milan Irr.	Milan Non-Irr.	Ames
					bu/a				
Armor	ARX 0471 (RR/STS)	64 ± 1	88	59	55	55	74	67	53
USG	74A79 (RR/STS)	64 ± 1	84	56	62	60	74	63	49
Armor	ARX 0472 (RR/STS)	63 ± 1	85	54	51	56	78	63	55
Delta King	DKR 4744s (RR)	62 ± 1	83	60	55	53	73	62	49
USG	74A69 (RR)	62 ± 1	81	49	56	58	81	60	49
Armor	ARX 0473 (RR)	61 ± 1	86	53	53	49	70	59	58
Progeny	4906 RR	61 ± 1	78	52	52	54	72	59	60
Delta King	DKX 0461 (RR)	61 ± 1	82	59	53	55	73	59	45
Morsoy	RTS 4824 (RR/STS)	61 ± 1	77	54	52	56	72	58	58
Croplan	RT 4886 RR (STS)	61 ± 1	84	50	50	50	77	54	59
Schillinger Seed	4990 RC	60 ± 1	75	54	53	57	66	61	57
Dairyland	8482 RR	60 ± 1	79	49	46	56	71	56	64
Hornbeck	HBK R 4924 (RR)	60 ± 1	85	46	55	57	63	59	56
Dairyland	48-000 RR	60 ± 1	79	56	55	52	77	56	47
Progeny	4908 RR	60 ± 1	73	53	50	56	71	59	57
Armor	ARX 0474 (RR)	60 ± 1	87	52	43	49	70	59	57
Dyna-Gro	35Z49 (RR)	60 ± 1	79	51	51	59	66	58	54
Delta Grow	4970 RR	59 ± 1	69	56	53	57	61	61	60
Morsoy	RTS 4955N (RR/STS)	59 ± 1	79	54	45	50	75	51	62
Asgrow	DK4866 (RR/STS)	59 ± 1	78	46	48	53	70	59	59
Dyna-Gro	37P49 (RR)	59 ± 1	73	51	47	56	73	59	54
USG	74A91 (RR)	59 ± 1	75	51	54	54	64	54	59
Delta Grow	4975 RR	59 ± 1	75	53	47	53	69	60	55
Asgrow	AG4903 (RR/STS)	58 ± 1	71	51	53	50	70	58	54
USG	74D79 (RR)	58 ± 1	77	53	54	52	66	49	57
Pioneer	94Y90 (RR)	58 ± 1	76	53	52	56	67	52	52
Terral	TV 49R17 (RR)	58 ± 1	73	53	46	49	74	62	49
USG	7495nRS	58 ± 1	78	51	45	48	68	56	57
Terral-REV Brand	49R21 (RR)	58 ± 1	72	53	54	55	64	55	50
Pioneer	94Y80 (RR)	57 ± 1	68	55	53	57	60	59	49
Progeny	4606 RR/STS	57 ± 1	72	55	46	53	67	55	53
Asgrow	AG4907 (RR)	57 ± 1	76	50	47	55	68	58	42
Trisler Seed	Trisoy 4984RR (CN)	56 ± 1	71	51	54	53	73	51	40
Armor	47-F8 (RR/STS)	55 ± 1	66	54	42	56	68	51	52
Dyna-Gro	32R46 (RR/STS)	55 ± 1	69	48	42	53	66	51	58
Steyer	4710 RR	55 ± 1	71	51	54	51	66	53	41
USG	74T98 (RR)	55 ± 1	62	53	44	63	58	51	55
Southern Cross	Galilee (RR)	55 ± 1	72	53	48	53	60	55	45
Southern Cross	Eli (RR/STS)	55 ± 1	71	52	40	51	62	54	56
USG	74A88 (RR)	55 ± 1	71	49	52	54	72	46	41
Dyna-Gro	V48N7 (RR/STS)	55 ± 1	69	48	48	51	69	49	49
Dairyland	8474 RR	55 ± 1	73	47	44	49	65	54	53
Morsoy	RT 4919N (RR)	55 ± 1	75	50	47	47	60	52	52
Morsoy	RT 4707N (RR)	55 ± 1	74	52	50	52	63	51	41
Progeny	4807 RR	55 ± 1	73	50	50	51	64	56	39
Asgrow	AG4703 (RR)	54 ± 1	74	46	43	51	66	47	54
USG	74F96 (RR)	54 ± 1	65	51	53	55	64	48	45
Terral-REV Brand	49R10 (RR)	54 ± 1	68	50	52	55	50	60	43
Progeny	4949 RR	54 ± 1	69	51	48	48	61	48	52
NK	S 48-C9 Brand (RR)	54 ± 1	78	48	41	50	64	56	40
Stine	4782-4 (RR/STS)	54 ± 1	66	49	41	53	64	52	52

Table 20 (continued)

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Knoxville	Spring Hill		Springfield	Milan		Ames
				Irr.	Non-Irr.		Irr.	Non-Irr.	
		---bu/a---							
Terral-REV Brand	49R20 (RR)	54 ± 1	75	53	53	58	52	49	36
Hornbeck	HBK R 4727 (RR)	54 ± 1	71	52	49	52	67	52	33
Morsoy	RTS 4706N (RR/STS)	54 ± 1	70	50	42	53	61	50	49
Southern Cross	Rufus (RR/STS)	53 ± 1	71	51	42	46	64	50	49
Dyna-Gro	32P48 (RR)	53 ± 1	74	51	47	53	64	46	38
Delta Grow	4870 RR	53 ± 1	70	47	46	49	69	50	42
Schillinger Seed	495 RC	53 ± 1	57	52	54	58	54	55	43
Pioneer	94Y70 (RR)	53 ± 1	70	46	44	54	63	54	39
USG	74E88 (RR/STS)	53 ± 1	65	45	54	52	64	44	44
USG	74A76 (RR)	53 ± 1	72	47	49	51	60	41	49
Schillinger Seed	4880 RC	53 ± 1	68	49	52	57	49	46	47
Hornbeck	HBK R 4729 (RR)	52 ± 1	64	51	47	50	63	48	44
Progeny	4706 RR	52 ± 1	75	49	45	52	55	47	42
Trisler Seed	Trisoy 4788RR(CN)STS	52 ± 1	70	41	45	49	67	51	40
Morsoy	RT 4914N (RR)	52 ± 1	64	48	51	57	62	45	36
Terral	TV 47R18 (RR)	52 ± 1	65	48	50	44	67	45	44
Delta Grow	4770 RR	52 ± 1	78	50	45	46	59	40	44
NK	S 49-H7 Brand (RR)	52 ± 1	66	47	43	50	64	51	41
MO Exp	S06-3929 (RR)	52 ± 1	77	46	44	51	52	47	45
Dyna-Gro	V49N6RR	51 ± 1	62	49	52	56	56	46	38
Delta Grow	4780 RR	51 ± 1	74	48	51	49	62	41	34
Asgrow	AG4606 (RR/STS)	51 ± 1	68	42	40	47	63	50	46
Schillinger Seed	499 RC	50 ± 1	70	51	47	53	53	42	35
Armor	48-J3 (RR)	50 ± 1	71	50	47	50	51	41	40
NK	S 46-U6 Brand (RR)	49 ± 1	59	43	48	50	60	49	32
Croplan	RC 4877 RR	48 ± 1	63	40	48	50	58	47	32
Terral	TV 49R19 (RR)	48 ± 1	55	47	45	50	51	41	47
Average (bu/a)		**56**	**73**	**51**	**49**	**53**	**65**	**53**	**48**
L.S.D.$_{.05}$ (bu/a)		**3**	**6**	**7**	**9**	**5**	**11**	**10**	**9**
C.V. (%)		**9.5**	**5.3**	**9.7**	**11.6**	**5.9**	**10.3**	**11.6**	**11.9**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 21. Mean yields † and agronomic characteristics of 78 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in seven environments in Tennessee in 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=6)	Height (n=7)	Maturity (n=4)	Shattering (n=4)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	--------Score--------		%	%	%	0 - 9	index
Armor	ARX 0471 (RR/STS)	64 ± 1	13.9	1.5	37	131	1.0	2.8	39.2	22.4	15.0	1.3	2.8
USG	74A79 (RR/STS)	64 ± 1	13.6	1.6	37	132	1.0	2.7	39.0	22.4	5.0	1.0	0.7
Armor	ARX 0472 (RR/STS)	63 ± 1	14.0	1.6	37	131	1.0	2.7	38.8	22.6	23.3	1.7	4.4
Delta King	DKR 4744s (RR)	62 ± 1	13.7	1.4	37	131	1.1	2.5	39.3	22.3	20.3	1.0	4.5
USG	74A69 (RR)	62 ± 1	13.7	1.7	38	129	1.1	2.5	38.9	22.5	14.0	1.3	3.0
Armor	ARX 0473 (RR)	61 ± 1	13.8	2.1	41	132	1.0	2.8	40.9	21.5	1.0	1.0	0.1
Progeny	4906 RR	61 ± 1	13.9	1.8	43	133	1.0	2.5	38.5	22.9	26.7	1.7	4.8
Delta King	DKX 0461 (RR)	61 ± 1	13.7	1.6	38	131	1.1	2.3	38.9	22.4	31.7	1.0	6.1
Morsoy	RTS 4824 (RR/STS)	61 ± 1	13.4	1.9	43	131	1.0	2.5	38.3	21.4	33.3	1.3	7.4
Croplan	RT 4886 RR (STS)	61 ± 1	13.9	2.2	44	135	1.0	3.2	39.2	23.1	27.0	1.7	5.6
Schillinger Seed	4990 RC	60 ± 1	14.1	1.5	42	135	1.0	3.0	40.1	22.1	53.3	2.3	14.4
Dairyland	8482 RR	60 ± 1	14.0	1.9	42	133	1.0	3.0	39.6	22.3	23.3	1.7	4.3
Hornbeck	HBK R 4924 (RR)	60 ± 1	14.1	2.3	48	136	1.0	3.0	39.1	22.5	12.0	1.0	1.3
Dairyland	48-000 RR	60 ± 1	14.0	1.6	41	130	1.0	2.5	40.1	21.9	41.7	2.7	13.3
Progeny	4908 RR	60 ± 1	13.8	2.0	42	134	1.0	2.8	39.0	22.5	7.0	1.0	0.8
Armor	ARX 0474 (RR)	60 ± 1	13.6	2.2	42	134	1.0	2.8	40.8	21.6	1.0	1.0	0.1
Dyna-Gro	35Z49 (RR)	60 ± 1	14.1	2.1	47	134	1.0	3.0	39.0	22.5	27.0	1.7	6.0
Delta Grow	4970 RR	59 ± 1	15.2	1.8	43	145	1.0	2.7	39.6	21.9	66.7	3.0	22.6
Morsoy	RTS 4955N (RR/STS)	59 ± 1	13.9	2.2	44	137	1.0	2.8	39.2	23.3	31.7	2.0	7.0
Asgrow	DK4866 (RR/STS)	59 ± 1	13.5	2.0	42	131	1.1	2.7	38.5	21.6	35.0	1.7	7.2
Dyna-Gro	37P49 (RR)	59 ± 1	13.8	1.8	41	132	1.0	2.7	38.5	22.8	30.3	1.7	6.7
USG	74A91 (RR)	59 ± 1	13.7	1.9	42	132	1.1	2.5	38.6	22.5	30.3	1.7	6.7
Delta Grow	4975 RR	59 ± 1	14.8	1.8	43	142	1.0	3.3	38.4	22.8	30.0	2.3	9.3
Asgrow	AG4903 (RR/STS)	58 ± 1	14.0	1.8	41	133	1.1	2.8	38.3	23.1	56.7	1.7	10.4
USG	74D79 (RR)	58 ± 1	13.5	1.4	37	133	1.0	2.7	38.7	22.4	31.7	1.7	6.9
Pioneer	94Y90 (RR)	58 ± 1	13.7	1.9	45	135	1.0	3.2	38.1	22.7	50.0	2.3	13.3
Terral	TV 49R17 (RR)	58 ± 1	14.3	1.9	50	135	1.0	3.3	41.3	21.2	8.3	1.3	1.9
USG	7495nRS	58 ± 1	13.9	2.2	42	134	1.1	2.5	39.8	23.0	6.7	0.7	0.7
Terral-REV Brand	49R21 (RR)	58 ± 1	15.1	1.8	49	141	1.0	2.3	40.0	21.9	15.0	1.7	3.1
Pioneer	94Y80 (RR)	57 ± 1	13.6	2.6	41	134	1.0	2.8	39.4	22.4	53.3	2.0	11.9
Progeny	4606 RR/STS	57 ± 1	13.3	1.1	35	129	1.1	2.8	37.2	23.5	13.7	2.0	3.7
Asgrow	AG4907 (RR)	57 ± 1	14.1	2.1	44	134	1.0	3.0	38.0	22.6	26.7	1.7	3.7
Trisler Seed	Trisoy 4984RR (CN)	56 ± 1	13.4	1.9	43	130	1.0	2.5	39.4	21.7	50.0	1.7	8.9
Armor	47-F8 (RR/STS)	55 ± 1	13.8	1.1	34	131	1.0	3.2	37.5	23.4	20.3	1.7	6.0

Table 21 (continued)

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=6)	Height (n=7)	Maturity (n=4)	Shattering (n=4)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	--------Score--------		%	%	%	0 - 9	index
Dyna-Gro	32R46 (RR/STS)	55 ± 1	13.8	1.1	35	129	1.0	3.2	38.1	23.2	35.0	1.7	10.2
Steyer	4710 RR	55 ± 1	13.6	1.9	41	132	1.0	2.5	38.3	22.7	31.7	2.3	8.5
USG	74T98 (RR)	55 ± 1	14.1	1.8	34	139	1.0	2.0	38.9	21.7	46.7	1.7	9.3
Southern Cross	Galilee (RR)	55 ± 1	13.6	2.1	41	132	1.1	2.5	38.6	22.5	16.7	1.7	3.3
Southern Cross	Eli (RR/STS)	55 ± 1	13.7	1.1	34	130	1.1	3.3	37.6	23.7	28.3	2.3	8.1
USG	74A88 (RR)	55 ± 1	13.3	2.0	42	131	1.0	2.8	39.3	21.4	50.0	2.0	13.7
Dyna-Gro	V48N7 (RR/STS)	55 ± 1	13.4	1.1	34	131	1.1	3.5	37.8	23.4	36.7	2.7	14.4
Dairyland	8474 RR	55 ± 1	14.0	1.8	38	133	1.0	2.5	39.7	22.1	21.7	1.7	4.6
Morsoy	RT 4919N (RR)	55 ± 1	13.4	1.2	37	132	1.1	2.5	38.1	22.6	60.0	2.0	13.3
Morsoy	RT 4707N (RR)	55 ± 1	13.7	2.2	41	133	1.0	3.0	39.0	22.4	33.7	1.3	6.0
Progeny	4807 RR	55 ± 1	13.4	1.8	41	134	1.0	2.8	38.4	22.5	43.3	2.0	9.6
Asgrow	AG4703 (RR)	54 ± 1	13.5	1.8	37	133	1.0	2.7	39.2	21.9	47.0	2.2	14.5
USG	74F96 (RR)	54 ± 1	13.8	1.7	43	135	1.1	3.7	38.4	21.9	60.0	2.0	14.4
Terral-REV Brand	49R10 (RR)	54 ± 1	13.9	2.9	47	132	1.0	2.7	40.3	22.6	53.3	2.0	11.9
Progeny	4949 RR	54 ± 1	13.8	1.9	42	135	1.0	3.5	40.1	22.8	63.3	2.0	14.1
NK	S 48-C9 Brand (RR)	54 ± 1	13.7	1.6	38	133	1.2	4.0	38.5	22.5	23.3	1.7	4.8
Stine	4782-4 (RR/STS)	54 ± 1	13.9	1.1	34	133	1.0	3.3	37.5	23.2	36.7	2.3	10.4
Terral-REV Brand	49R20 (RR)	54 ± 1	13.7	3.2	42	138	1.0	3.2	39.5	23.2	50.0	2.7	14.4
Hornbeck	HBK R 4727 (RR)	54 ± 1	13.4	2.1	42	133	1.2	3.0	38.7	22.6	47.0	2.0	13.0
Morsoy	RTS 4706N (RR/STS)	54 ± 1	13.5	1.1	34	131	1.1	3.2	37.5	23.3	36.7	2.0	8.1
Southern Cross	Rufus (RR/STS)	53 ± 1	13.3	1.7	39	132	1.0	3.7	39.1	23.7	8.3	1.7	1.5
Dyna-Gro	32P48 (RR)	53 ± 1	13.6	1.5	42	131	1.0	2.5	39.2	21.4	53.3	2.3	14.8
Delta Grow	4870 RR	53 ± 1	13.5	1.7	41	131	1.0	2.7	39.1	21.6	55.0	2.3	13.1
Schillinger Seed	495 RC	53 ± 1	14.2	2.4	45	136	1.0	3.0	40.6	21.7	73.3	4.0	33.0
Pioneer	94Y70 (RR)	53 ± 1	13.4	1.9	41	132	1.1	2.7	37.8	22.9	53.3	2.0	11.9
USG	74E88 (RR/STS)	53 ± 1	13.5	1.6	42	131	1.1	3.5	38.9	23.8	9.0	1.7	2.9
USG	74A76 (RR)	53 ± 1	13.9	2.4	42	134	1.0	2.8	38.5	22.1	22.0	1.3	4.7
Schillinger Seed	4880 RC	53 ± 1	14.1	2.1	44	135	1.0	2.5	40.7	21.4	66.7	2.3	17.0
Hornbeck	HBK R 4729 (RR)	52 ± 1	13.5	2.2	39	135	1.0	3.0	41.5	21.6	66.7	3.0	22.2
Progeny	4706 RR	52 ± 1	13.8	2.6	41	131	1.0	2.3	38.5	22.1	30.0	1.7	7.0
Trisler Seed	Trisoy 4788RR(CN)STS	52 ± 1	13.5	1.7	39	131	1.1	3.5	38.8	23.9	38.3	1.7	6.7
Morsoy	RT 4914N (RR)	52 ± 1	13.8	2.1	46	134	1.0	2.7	40.0	22.1	86.7	3.2	30.7
Terral	TV 47R18 (RR)	52 ± 1	13.8	2.4	43	134	1.0	2.0	40.8	21.3	10.3	1.3	1.9
Delta Grow	4770 RR	52 ± 1	13.6	2.4	41	132	1.0	2.8	38.7	22.2	56.7	2.3	14.8

Table 21 (continued)

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=6)	Height (n=7)	Maturity (n=4)	Shattering (n=4)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	--------Score--------		%	%	%	0 - 9	index
NK	S 49-H7 Brand (RR)	52 ± 1	14.0	1.7	41	135	1.0	2.7	39.1	22.2	53.3	2.0	11.9
MO Exp	S06-3929 (RR)	52 ± 1	13.5	2.5	40	141	1.0	3.8	41.0	21.6	31.7	1.7	6.5
Dyna-Gro	V49N6RR	51 ± 1	13.9	2.2	45	134	1.0	3.0	40.3	21.8	80.0	4.0	36.7
Delta Grow	4780 RR	51 ± 1	13.5	1.9	41	134	1.0	2.7	38.2	22.6	51.7	2.0	11.5
Asgrow	AG4606 (RR/STS)	51 ± 1	13.7	1.3	39	130	1.1	3.3	38.5	23.6	33.3	2.0	7.4
Schillinger Seed	499 RC	50 ± 1	14.2	2.3	45	140	1.0	4.0	41.1	21.5	60.0	2.7	17.4
Armor	48-J3 (RR)	50 ± 1	14.1	1.6	39	135	1.0	3.2	39.9	22.2	56.7	2.3	14.1
NK	S 46-U6 Brand (RR)	49 ± 1	13.5	1.6	42	134	1.0	3.3	38.3	22.4	86.7	3.0	28.9
Croplan	RC 4877 RR	48 ± 1	13.5	1.8	41	133	1.0	3.0	38.2	22.8	63.3	2.0	14.1
Terral	TV 49R19 (RR)	48 ± 1	13.5	1.2	42	131	1.0	2.7	38.4	23.4	73.3	2.0	16.3
	Average	**56**	**13.8**	**1.8**	**41**	**133**	**1.0**	**2.9**	**39.1**	**22.4**	**38.4**	**1.9**	**9.9**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle >45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 8/26/09.

Table 22. Mean yields † and SDS Ratings of 78 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated at Knoxville, Tennessee during 2009.

			SDS		
			DI	DS	DX
Brand	Variety ‡	Knoxville	(n=1)	(n=1)	(n=1)
			%	0 - 9	index
Armor	ARX 0473 (RR)	86	1.0	1.0	0.1
Armor	ARX 0474 (RR)	87	1.0	1.0	0.1
USG	74A79 (RR/STS)	84	5.0	1.0	0.7
USG	7495nRS	78	6.7	0.7	0.7
Progeny	4908 RR	73	7.0	1.0	0.8
Hornbeck	HBK R 4924 (RR)	85	12.0	1.0	1.3
Southern Cross	Rufus (RR/STS)	71	8.3	1.7	1.5
Terral	TV 49R17 (RR)	73	8.3	1.3	1.9
Terral	TV 47R18 (RR)	65	10.3	1.3	1.9
Armor	ARX 0471 (RR/STS)	88	15.0	1.3	2.8
USG	74E88 (RR/STS)	65	9.0	1.7	2.9
USG	74A69 (RR)	81	14.0	1.3	3.0
Terral-REV Brand	49R21 (RR)	72	15.0	1.7	3.1
Southern Cross	Galilee (RR)	72	16.7	1.7	3.3
Asgrow	AG4907 (RR)	76	26.7	1.7	3.7
Progeny	4606 RR/STS	72	13.7	2.0	3.7
Dairyland	8482 RR	79	23.3	1.7	4.3
Armor	ARX 0472 (RR/STS)	85	23.3	1.7	4.4
Delta King	DKR 4744s (RR)	83	20.3	1.0	4.5
Dairyland	8474 RR	73	21.7	1.7	4.6
USG	74A76 (RR)	72	22.0	1.3	4.7
NK	S 48-C9 Brand (RR)	78	23.3	1.7	4.8
Progeny	4906 RR	78	26.7	1.7	4.8
Croplan	RT 4886 RR (STS)	84	27.0	1.7	5.6
Dyna-Gro	35Z49 (RR)	79	27.0	1.7	6.0
Armor	47-F8 (RR/STS)	66	20.3	1.7	6.0
Morsoy	RT 4707N (RR)	74	33.7	1.3	6.0
Delta King	DKX 0461 (RR)	82	31.7	1.0	6.1
MO Exp	S06-3929 (RR)	77	31.7	1.7	6.5
Trisler Seed	Trisoy 4788RR(CN)STS	70	38.3	1.7	6.7
Dyna-Gro	37P49 (RR)	73	30.3	1.7	6.7
USG	74A91 (RR)	75	30.3	1.7	6.7
USG	74D79 (RR)	77	31.7	1.7	6.9
Morsoy	RTS 4955N (RR/STS)	79	31.7	2.0	7.0
Progeny	4706 RR	75	30.0	1.7	7.0
Asgrow	DK4866 (RR/STS)	78	35.0	1.7	7.2
Morsoy	RTS 4824 (RR/STS)	77	33.3	1.3	7.4
Asgrow	AG4606 (RR/STS)	68	33.3	2.0	7.4
Morsoy	RTS 4706N (RR/STS)	70	36.7	2.0	8.1
Southern Cross	Eli (RR/STS)	71	28.3	2.3	8.1
Steyer	4710 RR	71	31.7	2.3	8.5
Trisler Seed	Trisoy 4984RR (CN)	71	50.0	1.7	8.9
Delta Grow	4975 RR	75	30.0	2.3	9.3
USG	74T98 (RR)	62	46.7	1.7	9.3
Progeny	4807 RR	73	43.3	2.0	9.6
Dyna-Gro	32R46 (RR/STS)	69	35.0	1.7	10.2
Stine	4782-4 (RR/STS)	66	36.7	2.3	10.4
Asgrow	AG4903 (RR/STS)	71	56.7	1.7	10.4
Delta Grow	4780 RR	74	51.7	2.0	11.5
Pioneer	94Y80 (RR)	68	53.3	2.0	11.9
Terral-REV Brand	49R10 (RR)	68	53.3	2.0	11.9
Pioneer	94Y70 (RR)	70	53.3	2.0	11.9

Table 22 (continued)

Brand	Variety ‡	Avg. Yield Knoxville	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
			%	0 - 9	index
NK	S 49-H7 Brand (RR)	66	53.3	2.0	11.9
Hornbeck	HBK R 4727 (RR)	71	47.0	2.0	13.0
Delta Grow	4870 RR	70	55.0	2.3	13.1
Dairyland	48-000 RR	79	41.7	2.7	13.3
Pioneer	94Y90 (RR)	76	50.0	2.3	13.3
Morsoy	RT 4919N (RR)	75	60.0	2.0	13.3
USG	74A88 (RR)	71	50.0	2.0	13.7
Armor	48-J3 (RR)	71	56.7	2.3	14.1
Progeny	4949 RR	69	63.3	2.0	14.1
Croplan	RC 4877 RR	63	63.3	2.0	14.1
Schillinger Seed	4990 RC	75	53.3	2.3	14.4
Dyna-Gro	V48N7 (RR/STS)	69	36.7	2.7	14.4
USG	74F96 (RR)	65	60.0	2.0	14.4
Terral-REV Brand	49R20 (RR)	75	50.0	2.7	14.4
Asgrow	AG4703 (RR)	74	47.0	2.2	14.5
Dyna-Gro	32P48 (RR)	74	53.3	2.3	14.8
Delta Grow	4770 RR	78	56.7	2.3	14.8
Terral	TV 49R19 (RR)	55	73.3	2.0	16.3
Schillinger Seed	4880 RC	68	66.7	2.3	17.0
Schillinger Seed	499 RC	70	60.0	2.7	17.4
Hornbeck	HBK R 4729 (RR)	64	66.7	3.0	22.2
Delta Grow	4970 RR	69	66.7	3.0	22.6
NK	S 46-U6 Brand (RR)	59	86.7	3.0	28.9
Morsoy	RT 4914N (RR)	64	86.7	3.2	30.7
Schillinger Seed	495 RC	57	73.3	4.0	33.0
Dyna-Gro	V49N6RR	62	80.0	4.0	36.7
Average (bu/a)		**73**	**37.9**	**1.9**	**9.8**
L.S.D.$_{.05}$ (bu/a)		**6**			
C.V. (%)		**5.3**			

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size on 8/26/09.

Varieties with a higher DX value are more susceptible to SDS.

Table 23. Mean yields † of 52 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2008 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Knoxville	Spring Hill		Springfield	Milan		Ames
				Irr.	Non-Irr.		Irr.	Non-Irr.	
		bu/a							
Hornbeck	HBK R 4924 (RR)	61 ± 1	85	58	49	57	70	50	57
Delta Grow	4975 RR	60 ± 1	80	59	47	53	69	55	58
Dairyland	8482 RR	60 ± 1	82	58	45	59	72	50	52
Progeny	4906 RR	60 ± 1	83	59	47	56	65	52	55
Progeny	4908 RR	59 ± 1	81	58	46	60	70	50	51
Morsoy	RTS 4955N (RR/STS)	59 ± 1	84	56	43	55	70	48	58
USG	74A91 (RR)	59 ± 1	79	58	48	55	67	49	55
Dyna-Gro	37P49 (RR)	58 ± 1	74	60	42	61	69	51	52
Croplan	RT 4886 RR (STS)	58 ± 1	82	56	43	53	71	48	52
Delta Grow	4970 RR	57 ± 1	67	62	48	60	57	54	53
USG	7495nRS	57 ± 1	79	55	42	53	66	50	54
Asgrow	AG4903 (RR/STS)	57 ± 1	72	56	46	55	66	50	50
Asgrow	DK4866 (RR/STS)	56 ± 1	79	52	39	55	67	50	52
Pioneer	94Y90 (RR)	56 ± 1	73	60	45	57	65	46	48
Asgrow	AG4907 (RR)	56 ± 1	79	56	42	57	68	50	41
USG	74T98 (RR)	56 ± 1	63	61	47	60	60	46	56
Progeny	4606 RR/STS	56 ± 1	72	59	41	54	69	48	50
Trisler Seed	Trisoy 4984RR (CN)	55 ± 1	77	58	45	54	64	45	43
Armor	47-F8 (RR/STS)	55 ± 1	73	56	39	54	66	46	49
Delta Grow	4780 RR	55 ± 1	79	57	44	52	65	44	44
Terral	TV 49R17 (RR)	55 ± 1	71	54	41	50	69	52	45
Morsoy	RT 4707N (RR)	55 ± 1	77	57	42	53	61	48	44
Morsoy	RT 4914N (RR)	54 ± 1	68	57	47	59	60	45	45
Dyna-Gro	32R46 (RR/STS)	54 ± 1	71	58	40	52	66	44	49
Morsoy	RTS 4706N (RR/STS)	54 ± 1	73	54	41	58	63	45	46
Progeny	4807 RR	54 ± 1	75	56	42	53	62	48	42
Hornbeck	HBK R 4727 (RR)	54 ± 1	74	59	41	52	64	48	39
NK	S 49-H7 Brand (RR)	54 ± 1	63	56	46	55	67	46	44
USG	74A88 (RR)	54 ± 1	74	51	47	54	65	43	42
Asgrow	AG4703 (RR)	53 ± 1	69	53	39	53	65	45	51
USG	74E88 (RR/STS)	53 ± 1	69	52	47	55	59	43	48
Southern Cross	Eli (RR/STS)	53 ± 1	71	54	36	55	61	46	50
Dyna-Gro	32P48 (RR)	53 ± 1	76	55	42	55	60	42	41
Dairyland	8474 RR	53 ± 1	77	51	41	51	62	44	46
USG	74F96 (RR)	53 ± 1	64	54	46	58	60	43	45
Southern Cross	Galilee (RR)	53 ± 1	71	57	38	55	57	48	43

Table 23 (continued)

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Knoxville	Spring Hill Irr.	Spring Hill Non-Irr.	Springfield	Milan Irr.	Milan Non-Irr.	Ames
		---bu/a---							
Progeny	4949 RR	53 ± 1	73	54	44	51	57	43	47
Trisler Seed	Trisoy 4788RR (CN) STS	52 ± 1	72	49	37	51	65	47	45
Delta Grow	4770 RR	52 ± 1	75	56	39	50	60	40	44
Armor	48-J3 (RR)	52 ± 1	66	58	42	52	56	43	47
USG	74A76 (RR)	52 ± 1	68	51	41	53	63	41	48
Pioneer	94Y70 (RR)	52 ± 1	71	51	39	54	61	49	39
Schillinger Seed	495 RC	52 ± 1	62	59	45	56	53	48	39
NK	S 46-U6 Brand (RR)	52 ± 1	64	52	44	55	60	44	42
Dyna-Gro	V49N6RR	51 ± 1	64	53	44	57	55	45	43
Asgrow	AG4606 (RR/STS)	51 ± 1	71	49	35	51	58	45	47
Terral	TV 47R18 (RR)	51 ± 1	66	52	44	47	63	41	44
Stine	4782-4 (RR/STS)	50 ± 1	68	50	35	53	60	43	43
Progeny	4706 RR	50 ± 1	71	52	37	49	57	43	43
Croplan	RC 4877 RR	50 ± 1	68	51	41	54	56	43	39
Southern Cross	Rufus (RR/STS)	50 ± 1	70	54	34	48	59	44	42
Terral	TV 49R19 (RR)	49 ± 1	57	52	40	52	53	41	47
Average (bu/a)		**54**	**73**	**55**	**42**	**54**	**63**	**46**	**47**
L.S.D.$_{.05}$ (bu/a)		**3**	**7**	**7**	**7**	**6**	**8**	**7**	**8**
C.V. (%)		**9.5**	**7.1**	**9.9**	**11.6**	**7.4**	**9.4**	**10.2**	**11.8**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 24. Mean yields † and agronomic characteristics of 52 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2008 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Moisture § (n=14)	Lodging (n=10)	Height (n=14)	Maturity (n=11)	Shattering (n=8)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)
		bu/a	%	Score	in.	DAP	-------Score--------		%	%
Hornbeck	HBK R 4924 (RR)	61 ± 1	13.3	2.2	44	141	1.1	2.5	39.3	22.3
Delta Grow	4975 RR	60 ± 1	13.8	1.8	41	142	1.0	2.7	38.7	22.6
Dairyland	8482 RR	60 ± 1	12.9	2.0	40	139	1.1	2.7	39.7	22.0
Progeny	4906 RR	60 ± 1	13.1	1.9	40	138	1.1	2.3	38.8	22.7
Progeny	4908 RR	59 ± 1	13.2	2.0	40	140	1.1	2.5	39.5	22.3
Morsoy	RTS 4955N (RR/STS)	59 ± 1	13.3	2.1	41	141	1.2	2.6	39.6	23.1
USG	74A91 (RR)	59 ± 1	13.0	1.9	40	138	1.1	2.2	38.8	22.4
Dyna-Gro	37P49 (RR)	58 ± 1	13.2	1.9	39	138	1.0	2.3	38.8	22.7
Croplan	RT 4886 RR (STS)	58 ± 1	13.5	2.2	41	140	1.1	2.7	39.5	22.9
Delta Grow	4970 RR	57 ± 1	13.9	2.1	42	143	1.2	2.3	39.8	21.7
USG	7495nRS	57 ± 1	13.3	2.2	39	137	1.2	2.6	39.9	22.8
Asgrow	AG4903 (RR/STS)	57 ± 1	13.3	1.7	38	139	1.2	2.5	38.5	22.8
Asgrow	DK4866 (RR/STS)	56 ± 1	12.7	1.9	39	136	1.1	2.6	38.6	21.6
Pioneer	94Y90 (RR)	56 ± 1	12.9	1.8	41	138	1.0	2.7	38.4	22.3
Asgrow	AG4907 (RR)	56 ± 1	13.3	2.1	41	138	1.2	2.6	38.0	22.5
USG	74T98 (RR)	56 ± 1	13.6	1.9	33	140	1.1	2.2	38.5	21.9
Progeny	4606 RR/STS	56 ± 1	13.0	1.1	33	136	1.2	2.5	37.2	23.5
Trisler Seed	Trisoy 4984RR (CN)	55 ± 1	12.8	1.9	39	137	1.2	2.3	39.5	21.5
Armor	47-F8 (RR/STS)	55 ± 1	13.2	1.2	33	137	1.0	2.8	37.3	23.4
Delta Grow	4780 RR	55 ± 1	12.8	1.9	39	138	1.1	2.5	38.3	22.6
Terral	TV 49R17 (RR)	55 ± 1	13.5	2.0	47	139	1.2	2.8	41.0	21.2
Morsoy	RT 4707N (RR)	55 ± 1	12.7	2.1	39	139	1.1	2.5	38.7	22.3
Morsoy	RT 4914N (RR)	54 ± 1	13.2	2.1	43	140	1.2	2.5	40.2	21.8
Dyna-Gro	32R46 (RR/STS)	54 ± 1	13.0	1.2	33	136	1.0	2.5	37.6	23.0
Morsoy	RTS 4706N (RR/STS)	54 ± 1	12.8	1.2	33	138	1.1	2.7	37.3	23.3
Progeny	4807 RR	54 ± 1	12.9	1.8	38	139	1.1	2.4	38.2	22.3
Hornbeck	HBK R 4727 (RR)	54 ± 1	12.7	2.0	39	138	1.2	2.3	38.3	22.6
NK	S 49-H7 Brand (RR)	54 ± 1	13.2	1.7	40	140	1.1	2.3	39.1	22.1
USG	74A88 (RR)	54 ± 1	12.7	2.0	39	138	1.0	2.6	39.5	21.3
Asgrow	AG4703 (RR)	53 ± 1	12.7	1.7	35	138	1.0	2.3	39.0	21.9
USG	74E88 (RR/STS)	53 ± 1	12.7	1.6	40	136	1.3	2.7	38.5	23.7
Southern Cross	Eli (RR/STS)	53 ± 1	13.2	1.1	32	136	1.2	2.6	37.2	23.6
Dyna-Gro	32P48 (RR)	53 ± 1	12.8	1.6	39	138	1.0	2.3	39.5	21.3
Dairyland	8474 RR	53 ± 1	13.2	1.8	35	138	1.2	2.3	39.3	22.2
USG	74F96 (RR)	53 ± 1	13.4	1.7	40	138	1.1	2.8	38.1	22.1
Southern Cross	Galilee (RR)	53 ± 1	12.9	1.9	39	138	1.1	2.3	38.3	22.5

Table 24 (continued)

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Moisture § (n=14)	Lodging (n=10)	Height (n=14)	Maturity (n=11)	Shattering (n=8)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)
		bu/a	%	Score	in.	DAP	-------Score--------		%	%
Progeny	4949 RR	53 ± 1	13.1	2.0	40	140	1.2	2.9	39.8	22.5
Trisler Seed	Trisoy 4788RR (CN) STS	52 ± 1	12.9	1.5	36	135	1.3	2.8	38.4	23.7
Delta Grow	4770 RR	52 ± 1	12.8	2.3	39	136	1.2	2.5	38.6	22.1
Armor	48-J3 (RR)	52 ± 1	13.1	1.7	37	139	1.1	2.8	39.9	22.1
USG	74A76 (RR)	52 ± 1	13.0	2.3	39	136	1.1	2.6	38.6	21.9
Pioneer	94Y70 (RR)	52 ± 1	12.7	2.0	39	136	1.2	2.5	37.6	23.1
Schillinger Seed	495 RC	52 ± 1	13.3	2.3	42	138	1.2	2.7	40.4	21.6
NK	S 46-U6 Brand (RR)	52 ± 1	13.0	1.7	40	139	1.1	2.8	38.6	22.1
Dyna-Gro	V49N6RR	51 ± 1	13.2	2.3	42	137	1.2	2.8	40.3	21.6
Asgrow	AG4606 (RR/STS)	51 ± 1	12.9	1.3	36	135	1.3	2.7	38.1	23.7
Terral	TV 47R18 (RR)	51 ± 1	12.8	2.4	41	138	1.1	2.5	40.7	21.0
Stine	4782-4 (RR/STS)	50 ± 1	13.3	1.2	32	137	1.1	2.4	37.1	23.3
Progeny	4706 RR	50 ± 1	13.0	2.4	38	134	1.1	2.3	38.2	22.2
Croplan	RC 4877 RR	50 ± 1	12.8	1.8	39	139	1.1	2.5	38.0	22.6
Southern Cross	Rufus (RR/STS)	50 ± 1	12.5	1.5	36	135	1.2	2.8	38.6	23.6
Terral	TV 49R19 (RR)	49 ± 1	12.8	1.3	39	138	1.0	2.4	38.0	23.5
	Average	**54**	**13.0**	**1.8**	**39**	**138**	**1.1**	**2.5**	**38.8**	**22.5**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 25. Mean yields † of 35 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in six environments (n=18) in Tennessee for three years, 2007 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=18)	Knoxville	Spring Hill	Springfield	Milan		Ames
				Non-Irr.		Irr.	Non-Irr.	
		---bu/a---						
Hornbeck	HBK R 4924 (RR)	53 ± 1	71	42	44	69	41	49
Dairyland	8482 RR	52 ± 1	69	40	45	73	40	44
Progeny	4906 RR	52 ± 1	69	40	44	65	42	48
USG	74A91 (RR)	51 ± 1	67	40	41	72	41	47
Morsoy	RTS 4955N (RR/STS)	51 ± 1	68	37	43	68	39	50
Dyna-Gro	37P49 (RR)	50 ± 1	64	38	46	70	41	43
Delta Grow	4970 RR	50 ± 1	59	41	46	62	44	47
Asgrow	DK4866 (RR/STS)	50 ± 1	67	34	42	69	40	45
Croplan	RT 4886 RR (STS)	49 ± 1	68	36	39	70	39	45
USG	7495nRS	49 ± 1	65	36	39	68	42	46
Asgrow	AG4903 (RR/STS)	49 ± 1	60	40	44	69	39	43
USG	74T98 (RR)	49 ± 1	55	37	47	64	40	49
USG	74F96 (RR)	48 ± 1	57	41	45	63	38	41
NK	S 49-H7 Brand (RR)	47 ± 1	55	41	42	69	38	40
Morsoy	RT 4914N (RR)	47 ± 1	59	38	46	62	38	41
Terral	TV 49R17 (RR)	47 ± 1	59	37	39	69	41	37
Morsoy	RTS 4706N (RR/STS)	47 ± 1	60	35	44	67	37	39
Morsoy	RT 4707N (RR)	47 ± 1	65	36	40	66	37	38
Delta Grow	4780 RR	47 ± 1	66	35	41	67	33	38
Armor	47-F8 (RR/STS)	47 ± 1	58	35	40	70	36	40
Dyna-Gro	32R46 (RR/STS)	46 ± 1	57	34	40	70	36	41
Southern Cross	Eli (RR/STS)	46 ± 1	58	31	42	67	37	42
Armor	48-J3 (RR)	46 ± 1	58	37	41	62	35	43
Progeny	4807 RR	46 ± 1	62	33	39	67	38	37
Dairyland	8474 RR	46 ± 1	63	35	38	64	36	40
Hornbeck	HBK R 4727 (RR)	46 ± 1	61	34	39	69	36	36
Southern Cross	Galilee (RR)	45 ± 1	60	32	41	64	37	38
Progeny	4949 RR	45 ± 1	60	38	38	58	34	43
Schillinger Seed	495 RC	45 ± 1	55	38	43	56	39	38
Stine	4782-4 (RR/STS)	45 ± 1	55	32	41	68	35	38
Asgrow	AG4703 (RR)	45 ± 1	57	31	39	66	34	42
Dyna-Gro	V49N6RR	45 ± 1	55	36	44	56	36	40
USG	74A76 (RR)	44 ± 1	57	34	40	63	31	40
Delta Grow	4770 RR	44 ± 1	62	34	39	64	31	37
Progeny	4706 RR	44 ± 1	59	33	38	62	33	39
Average (bu/a)		**47**	**61**	**36**	**42**	**66**	**38**	**42**
L.S.D.$_{.05}$ (bu/a)		**3**	**7**	**7**	**5**	**9**	**6**	**7**
C.V. (%)		**10.4**	**7.6**	**13.1**	**8.4**	**9.7**	**11.9**	**12.6**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 26. Mean yields † and agronomic characteristics of 35 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in six environments (n=18) in Tennessee for three years, 2007 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=18)	Moisture § (n=18)	Lodging (n=11)	Height (n=17)	Maturity (n=14)	Shattering (n=9)	Leaf Retention (n=2)	Seed Quality (n=4)	Protein (n=4)	Oil (n=4)
		bu/a	%	Score	in.	DAP	----------Score----------			%	%
Hornbeck	HBK R 4924 (RR)	53 ± 1	13.3	2.2	43	145	1.2	2.3	2.5	40.3	21.6
Dairyland	8482 RR	52 ± 1	12.8	1.9	39	144	1.2	2.5	2.6	40.0	21.8
Progeny	4906 RR	52 ± 1	13.3	1.9	39	144	1.1	2.6	3.0	39.9	21.7
USG	74A91 (RR)	51 ± 1	13.2	1.8	38	144	1.1	2.8	2.8	40.1	21.4
Morsoy	RTS 4955N (RR/STS)	51 ± 1	13.1	2.0	40	143	1.1	1.9	2.5	40.7	22.4
Dyna-Gro	37P49 (RR)	50 ± 1	13.5	1.8	38	145	1.0	2.4	3.1	40.2	21.7
Delta Grow	4970 RR	50 ± 1	13.7	2.1	41	146	1.3	2.1	2.4	41.0	21.0
Asgrow	DK4866 (RR/STS)	50 ± 1	12.7	1.9	38	141	1.0	1.5	2.6	39.3	21.3
Croplan	RT 4886 RR (STS)	49 ± 1	13.5	2.1	40	144	1.1	1.9	2.6	40.8	22.2
USG	7495nRS	49 ± 1	13.5	2.1	38	143	1.2	2.0	2.6	41.0	22.1
Asgrow	AG4903 (RR/STS)	49 ± 1	13.4	1.8	37	144	1.1	2.0	2.4	40.1	21.9
USG	74T98 (RR)	49 ± 1	13.4	1.8	33	145	1.3	2.2	2.4	39.2	21.9
USG	74F96 (RR)	48 ± 1	13.7	1.7	39	143	1.2	2.1	2.7	39.9	21.2
NK	S 49-H7 Brand (RR)	47 ± 1	13.2	1.7	39	145	1.1	2.3	2.0	40.5	21.3
Morsoy	RT 4914N (RR)	47 ± 1	13.3	2.2	42	145	1.3	2.1	2.5	41.1	21.0
Terral	TV 49R17 (RR)	47 ± 1	13.4	1.8	46	144	1.2	1.9	2.8	42.1	20.7
Morsoy	RTS 4706N (RR/STS)	47 ± 1	12.9	1.2	32	143	1.1	1.6	2.5	38.1	22.7
Morsoy	RT 4707N (RR)	47 ± 1	12.8	2.0	39	144	1.1	2.4	2.5	39.9	21.3
Delta Grow	4780 RR	47 ± 1	12.7	1.9	38	143	1.0	2.8	2.6	39.9	21.5
Armor	47-F8 (RR/STS)	47 ± 1	13.2	1.3	32	142	1.1	1.6	2.3	37.9	22.7
Dyna-Gro	32R46 (RR/STS)	46 ± 1	13.0	1.2	32	141	1.1	1.5	2.3	38.4	22.4
Southern Cross	Eli (RR/STS)	46 ± 1	13.1	1.2	32	141	1.1	1.4	2.4	38.2	22.8
Armor	48-J3 (RR)	46 ± 1	13.0	1.8	37	143	1.1	1.6	2.3	41.2	21.5
Progeny	4807 RR	46 ± 1	12.6	1.9	38	144	1.1	2.5	2.5	39.7	21.3
Dairyland	8474 RR	46 ± 1	13.1	1.8	35	143	1.1	2.0	2.3	39.9	21.7
Hornbeck	HBK R 4727 (RR)	46 ± 1	12.8	1.9	39	143	1.1	2.6	2.5	40.2	21.5
Southern Cross	Galilee (RR)	45 ± 1	12.9	1.8	38	143	1.1	2.4	2.4	39.6	21.5
Progeny	4949 RR	45 ± 1	13.2	2.1	39	145	1.3	2.3	2.7	40.5	21.9
Schillinger Seed	495 RC	45 ± 1	13.1	2.4	41	144	1.3	2.0	2.6	41.2	20.9
Stine	4782-4 (RR/STS)	45 ± 1	13.2	1.2	32	143	1.1	1.9	2.5	38.4	22.5

Table 26 (continued)

Brand	Variety ‡	Avg. Yield ± Std Err. (n=18)	Moisture § (n=18)	Lodging (n=11)	Height (n=17)	Maturity (n=14)	Shattering (n=9)	Leaf Retention (n=2)	Seed Quality (n=4)	Protein (n=4)	Oil (n=4)
		bu/a	%	Score	in.	DAP	----------	Score	----------	%	%
Asgrow	AG4703 (RR)	45 ± 1	13.1	1.7	33	141	1.0	2.1	2.3	40.2	21.0
Dyna-Gro	V49N6RR	45 ± 1	13.1	2.2	41	142	1.3	1.8	2.7	41.0	20.9
USG	74A76 (RR)	44 ± 1	12.9	2.0	38	141	1.2	1.6	2.4	39.9	21.2
Delta Grow	4770 RR	44 ± 1	12.7	2.2	39	140	1.2	1.5	2.3	39.9	21.3
Progeny	4706 RR	44 ± 1	12.8	2.2	38	139	1.1	1.5	2.1	39.7	21.3
	Average	**47**	**13.1**	**1.9**	**38**	**143**	**1.1**	**2.0**	**2.5**	**40.0**	**21.6**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Leaf Retention (at harvest) = 1 to 5 scale; where 1 = < 5% of plants holding leaves at harvest maturity; 5=95+% of plants holding leaves and green stems at harvest maturity.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 27. Yields † of 30 Late Maturity Group IV (4.6-4.9) Roundup Ready soybean varieties in 15 County Standard Tests in Tennessee and Kentucky during 2009.

MS	Brand/Variety	Avg. Yield	Moist‡	Coffee	Crockett	Dyer	Franklin	(KY) Fulton	Parkins Gibson	Steele Gibson	Haywwod	Henry	Lake	Lauderdale	Madison	Montgomery	Obion	Weakley
		bu/a	%	5/14 §	6/9	6/3	5/29	7/7	6/8	6/29	6/26	6/22	5/19	6/20	5/19	7/1	5/18	6/26
A	Pioneer 94Y80 (RR)	62.5	11.8	71.0	82.4	71.6	64.0	49.6	74.2	56.2	46.4	64.1	60.3	60.0	65.8	45.5	72.0	54.5
AB	Progeny 4906 RR	62.5	11.9	67.4	73.7	73.2	68.1	49.2	77.2	62.4	54.3	63.2	51.7	54.5	65.2	50.5	73.7	52.8
ABC	Asgrow AG4907 (RR)	62.3	11.9	81.9	76.5	72.6	66.3	49.6	74.2	52.9	54.0	60.8	48.9	55.2	62.9	48.7	84.5	45.4
ABC	Asgrow AG4907 (RR) Cruiser	62.1	11.7	68.8	77.9	73.1	70.6	51.9	71.4	61.2	47.3	64.9	49.3	56.1	62.0	48.0	78.7	49.8
ABC	Pioneer 94Y70 (RR)	62.0	11.5	68.4	73.9	72.6	64.5	52.1	70.6	60.4	51.8	62.9	66.0	49.8	64.5	49.6	74.0	49.6
ABCD	*Dairyland 8482 RR	61.4	12.1	59.6	80.9	72.0	68.3	51.0	71.3	61.2	53.1	65.9	63.7	48.5	63.0	48.9	76.0	38.4
ABCD	USG 74A91 (RR)	61.4	12.0	72.5	80.0	72.2	66.4	48.2	91.3	58.5	52.5	54.7	51.4	49.0	62.3	46.0	72.2	44.1
ABCDE	Dyna-Gro V48N7 (RR/STS)	61.3	11.7	72.9	77.7	74.2	67.6	49.6	67.4	53.7	51.0	59.9	51.0	61.3	63.6	45.5	73.6	51.1
ABCDEF	Trisoy 4984 RR(CN)	61.2	11.8	69.2	75.5	69.3	66.7	46.9	85.9	61.3	53.3	60.5	55.3	43.8	58.1	50.2	75.8	46.3
ABCDEF	Southern Cross Galilee RR	61.0	11.5	69.7	79.9	68.1	68.4	51.0	72.9	61.6	50.3	59.7	54.0	55.1	57.9	42.6	76.3	47.2
ABCDEFG	NK S48-C9 Brand (RR)	60.6	11.9	64.4	76.3	70.2	72.4	53.1	67.9	64.6	50.9	68.6	51.2	51.0	58.0	45.2	73.9	41.5
ABCDEFGH	Armor 47-F8 (RR/STS)	60.2	11.7	70.2	77.9	71.0	70.8	44.9	77.6	57.5	52.0	56.5	59.9	51.1	62.5	44.5	69.5	37.8
ABCDEFGH	**Croplan RT4886S (RR/STS)	60.2	12.2	80.5	75.8	72.0	65.4	49.0	73.4	56.1	45.7	61.3	53.2	52.4	64.3	47.3	73.0	33.1
ABCDEFGH	**Dyna-Gro V49N6 RR	60.1	12.0	75.7	76.3	68.6	63.7	50.0	62.3	54.0	50.7	59.6	54.9	52.5	61.8	45.7	73.9	52.6
ABCDEFGHI	Progeny 4807 RR	59.8	11.6	71.3	79.4	70.0	67.8	51.3	71.2	48.3	42.0	64.2	54.6	47.5	61.9	44.9	75.7	47.1
ABCDEFGHI	Progeny 4908 RR	59.7	11.9	57.0	74.5	70.3	66.4	43.1	75.7	56.3	49.4	57.4	62.9	53.6	67.4	45.4	74.2	41.9
ABCDEFGHI	Asgrow DK4866 (RR/STS)	59.5	11.6	58.4	68.6	73.5	66.8	50.0	74.3	60.3	55.7	64.2	46.0	51.9	57.8	50.6	72.3	41.7
BCDEFGHI	Dyna-Gro 32R46 (RR/STS)	59.2	11.7	70.1	77.2	71.6	66.5	49.1	71.8	49.9	44.4	62.1	52.4	44.7	63.7	46.4	74.3	44.2
CDEFGHI	Schillinger 495RC	59.1	12.0	71.2	79.2	65.8	67.9	48.6	76.9	53.4	42.3	56.4	56.7	51.5	59.6	38.8	76.0	42.7
DEFGHIJ	Dairyland 8474 RR	58.7	11.9	61.9	74.2	71.4	66.4	47.5	69.5	53.1	48.8	62.3	55.6	44.5	66.9	46.9	72.9	38.2
DEFGHIJ	Morsoy RTs4824 (RR/STS)	58.5	11.8	65.8	80.5	74.5	61.2	53.7	69.5	52.8	38.1	61.7	54.0	39.8	63.6	47.4	72.2	42.6
DEFGHIJ	Armor 48-J3 (RR)	58.3	12.1	73.6	74.9	68.2	58.7	46.2	69.9	48.5	51.0	60.1	59.2	48.8	57.4	39.2	70.7	48.3
EFGHIJ	Stine 4782-4 (RR/STS)	58.1	11.6	71.3	74.0	67.9	67.6	41.8	69.5	40.9	54.4	58.6	58.8	51.3	67.7	41.9	65.6	40.1
FGHIJ	Asgrow AG4606 (RR/STS)	58.1	11.9	71.6	65.7	69.5	64.2	48.3	71.9	50.4	49.3	55.9	51.0	49.9	61.5	42.9	75.7	43.4
GHIJ	Schillinger 478RCS (RR/STS)	57.7	12.1	72.3	75.6	70.5	59.7	51.6	63.4	53.9	48.2	57.8	49.3	49.6	60.0	49.5	70.0	33.6
HIJ	Steyer 4620 (RR/STS)	57.1	12.0	65.9	65.5	65.1	66.4	46.1	83.0	49.8	48.4	47.5	46.3	48.2	59.7	41.8	75.2	48.4
HIJ	USG 74E88 (RR/STS)	57.1	12.0	73.3	72.9	67.5	64.9	50.9	50.7	47.1	52.3	55.0	56.9	52.3	63.7	40.7	73.3	35.5
IJ	Crow's C4820R (RR/STS)	56.8	11.8	70.8	67.1	67.9	66.0	45.5	64.1	51.0	47.4	54.0	52.7	42.9	64.0	36.5	71.5	50.4
IJ	Croplan RC4877 RR	56.7	11.5	75.5	79.4	66.8	63.7	41.4	64.3	44.1	57.2	54.4	56.9	47.9	61.6	42.7	52.4	41.9
J	NK S46-U6 Brand (RR)	55.7	11.9	66.6	68.6	65.7	56.1	48.2	62.8	47.2	52.2	63.6	46.4	46.1	54.1	40.7	71.9	45.4
	Average (bu/a)	**59.6**	**11.8**	**69.6**	**75.4**	**70.2**	**65.8**	**48.6**	**71.5**	**54.3**	**49.8**	**59.9**	**54.3**	**50.4**	**62.1**	**45.1**	**73.0**	**44.3**

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

Each variety was evaluated in a large strip-plot at each loction, thus each county test was considered as one replication of the test in calculating the average yield and in conducting the statistical analysis to determine significant differences (MS).

Varieties denoted with an asterisk (*) and/or (**) were in the top performing group in 2008 and/or 2007, respectively.

MS= Varieties with any MS letter in common are not statistically different at the 5% level of probability.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 28. Yields † and disease ratings § of 30 late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in Tennessee County Standard Tests during 2009.

		CST Avg. Yield		---------- Research and Education Center at Milan ----------								
MS	Brand/Variety	(n=15)	Moisture ‡	SDS	Frogeye	Anthracnose	Stem Canker	Sprayed ¶ Yield	Unsprayed Yield	SCN Race 2	SCN Race 3	SCN Race 14
		bu/a	%	2007 / 08 / 2009	2007 / 08 / 2009	2008 / 09	2009	bu/a	bu/a	2009	2009	2009
A	Pioneer 94Y80 (RR)	62.5	11.8	/ / 2.3	/ / 1.0	/ 6.7	0.0	61.6	60.0	S	MR	S
AB	Progeny 4906 RR	62.5	11.9	0.0 / 0.0 / 0.7	6.0 / 4.3 / 2.0	2.0 / 8.0	3.3	66.9	59.8	S	S	S
ABC	Asgrow AG4907 (RR)	62.3	11.9	/ / 4.0	/ / 3.7	/ 8.3	0.0	62.6	58.5	S	S	S
ABC	Asgrow AG4907 (RR) Cruiser	62.1	11.7	/ / 4.0	/ / 4.0	/ 7.3	0.0	65.5	60.5	S	S	S
ABC	Pioneer 94Y70 (RR)	62.0	11.5	/ / 4.7	/ / 0.0	/ 5.0	0.0	66.7	59.0	S	MR	S
ABCD	*Dairyland 8482 RR	61.4	12.1	/ 0.3 / 1.3	/ 5.0 / 2.7	3.0 / 5.0	0.0	68.6	61.7	S	S	S
ABCD	USG 74A91 (RR)	61.4	12.0	/ / 0.7	/ / 2.3	/ 9.7	5.7	64.3	54.5	S	S	S
ABCDE	Dyna-Gro V48N7 (RR/STS)	61.3	11.7	/ / 7.0	/ / 1.0	/ 8.7	0.0	59.9	56.7	S	S	S
ABCDEF	Trisoy 4984 RR(CN)	61.2	11.8	/ / 1.0	/ / 1.3	/ 4.0	2.7	60.8	56.1	S	S	S
ABCDEF	Southern Cross Galilee RR	61.0	11.5	/ / 4.7	/ / 0.0	/ 5.0	0.3	58.8	55.5	S	R	S
ABCDEFG	NK S48-C9 Brand (RR)	60.6	11.9	/ / 3.0	/ / 3.0	/ 9.0	0.0	62.7	56.0	S	MR	S
ABCDEFGH	Armor 47-F8 (RR/STS)	60.2	11.7	0.0 / 0.0 / 4.0	0.0 / 0.0 / 0.0	3.0 / 7.7	0.0	66.9	63.6	S	S	S
ABCDEFGH	**Croplan RT4886S (RR/STS)	60.2	12.2	0.0 / 0.0 / 1.7	6.0 / 6.3 / 4.7	2.7 / 6.7	0.0	63.9	59.1	S	NA	S
ABCDEFGH	**Dyna-Gro V49N6 RR	60.1	12.0	3.0 / 0.3 / 7.0	0.0 / 0.0 / 0.0	4.0 / 6.0	0.0	60.7	58.9	S	S	S
ABCDEFGHI	Progeny 4807 RR	59.8	11.6	/ / 4.3	/ / 0.3	/ 4.7	0.0	57.0	57.7	S	MR	S
ABCDEFGHI	Progeny 4908 RR	59.7	11.9	/ / 1.0	/ / 3.7	/ 5.0	0.0	68.0	60.5	S	S	S
ABCDEFGHI	Asgrow DK4866 (RR/STS)	59.5	11.6	0.0 / 0.0 / 3.3	8.0 / 7.0 / 3.3	3.0 / 7.7	3.7	58.0	54.3	S	S	S
BCDEFGHI	Dyna-Gro 32R46 (RR/STS)	59.2	11.7	/ / 3.7	/ / 0.0	/ 9.0	0.7	69.2	57.5	S	S	S
CDEFGHI	Schillinger 495RC	59.1	12.0	4.0 / 0.7 / 7.7	0.0 / 0.3 / 0.0	3.0 / 8.3	0.0	60.4	60.3	S	S	S
DEFGHIJ	Dairyland 8474 RR	58.7	11.9	1.0 / 0.0 / 2.7	4.0 / 3.3 / 2.3	2.7 / 8.7	0.0	62.0	56.6	S	S	S
DEFGHIJ	Morsoy RTs4824 (RR/STS)	58.5	11.8	/ / 1.7	/ / 4.3	/ 6.7	3.7	64.7	58.9	S	S	S
DEFGHIJ	Armor 48-J3 (RR)	58.3	12.1	/ 0.7 / 5.7	/ 2.3 / 2.3	2.7 / 8.3	0.0	58.1	55.3	S	S	S
EFGHIJ	Stine 4782-4 (RR/STS)	58.1	11.6	0.0 / 0.0 / 3.3	10.0 / 0.0 / 0.0	3.0 / 9.7	1.0	64.2	59.1	S	NA	S
FGHIJ	Asgrow AG4606 (RR/STS)	58.1	11.9	/ / 2.7	/ / 5.3	/ 5.7	0.0	56.6	57.0	S	S	S
GHIJ	Schillinger 478RCS (RR/STS)	57.7	12.1	/ / 3.3	/ / 5.7	/ 7.3	0.0	63.7	60.3	S	R	S
HIJ	Steyer 4620 (RR/STS)	57.1	12.0	/ / 3.7	/ / 5.7	/ 6.3	0.0	60.7	54.9	S	MR	S
HIJ	USG 74E88 (RR/STS)	57.1	12.0	/ / 1.7	/ / 5.0	/ 6.0	0.0	58.1	52.3	S	S	S
IJ	Crow's C4820R (RR/STS)	56.8	11.8	/ / 3.0	/ / 6.3	/ 7.3	0.0	55.7	49.6	S	S	S
IJ	Croplan RC4877 RR	56.7	11.5	/ 0.0 / 4.7	/ 0.0 / 0.0	2.0 / 5.0	0.3	57.2	51.0	S	R	S
J	NK S46-U6 Brand (RR)	55.7	11.9	/ 0.3 / 6.7	/ 0.0 / 0.0	6.0 / 7.7	0.0	60.8	56.1	S	MR	S
	Average (bu/a)	**59.6**	**11.8**					**62.1**	**57.4**			

† Yields have been adjusted to 13% moisture. ‡ Moisture at harvest.

§ Disease ratings for SDS, Frogeye Leaf Spot, Anthracnose, and Stem Canker are from 0-10, where 0=no disease, 10=maximum level of disease or plant death. SDS = Sudden Death Syndrome.

¶ Sprayed plots at Milan treated with Headline @ 6 oz./Acre + 0.25% Induce at 20 gpa at R3 growth stage.

Disease ratings compiled by Dr. Melvin Newman from replicated plots at the Research and Education Center at Milan.

SCN ratings; S= susceptible, MS = moderately susceptible, MR = moderately resistant R = resistant. (Race 2 SCN HG Type 1.2.5.7)

SCN Greenhouse Ratings compiled by Dr. Pat Donald, Research Plant Path., USDA-ARS, West TN REC.

MS= Varieties with one or more letters in common are not statistically different at the .05 level of probability.

Varieties denoted with an asterisk (*) and/or (**) were in the top performing group in 2008 and or 2007, respectively.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops.

Table 29. Overall average yields † and moistures ‡ of 24 Late Maturity Group IV (4.6 - 4.9) Roundup Ready soybean varieties evaluated in County Standard Tests (n=15) and Research and Education Centers (n=7) in Tennessee during 2009.

		Averages of CST & REC Tests		County Standard Trials		Research and Education Center Trials	
Brand	Variety	Avg. Yield	Moisture	Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%	bu/a	%
Progeny	4906 RR	62	12.9	62	11.9	61	13.9
Dairyland	8482 RR	61	13.1	61	12.1	60	14.0
Croplan	RT 4886 RR (STS)	61	13.0	60	12.2	61	13.9
USG	74A91 (RR)	60	12.8	61	12.0	59	13.7
Progeny	4908 RR	60	12.9	60	11.9	60	13.8
Pioneer	94Y80 (RR)	60	12.7	62	11.8	57	13.6
Morsoy	RTS 4824 (RR/STS)	60	12.6	58	11.8	61	13.4
Asgrow	AG4907 (RR)	60	13.0	62	11.9	57	14.1
Asgrow	DK4866 (RR/STS)	59	12.6	59	11.6	59	13.5
Trisler Seed	Trisoy 4984RR (CN)	59	12.6	61	11.8	56	13.4
Dyna-Gro	V48N7 (RR/STS)	58	12.5	61	11.7	55	13.4
Southern Cross	Galilee (RR)	58	12.6	61	11.5	55	13.6
Armor	47-F8 (RR/STS)	58	12.7	60	11.7	55	13.8
Pioneer	94Y70 (RR)	58	12.5	62	11.5	53	13.4
Progeny	4807 RR	57	12.5	60	11.6	55	13.4
NK	S 48-C9 Brand (RR)	57	12.8	61	11.9	54	13.7
Dyna-Gro	32R46 (RR/STS)	57	12.8	59	11.7	55	13.8
Dairyland	8474 RR	57	13.0	59	11.9	55	14.0
Schillinger Seed	495 RC	56	13.1	59	12.0	53	14.2
Stine	4782-4 (RR/STS)	56	12.8	58	11.6	54	13.9
Dyna-Gro	V49N6RR	56	12.9	60	12.0	51	13.9
USG	74E88 (RR/STS)	55	12.7	57	12.0	53	13.5
Asgrow	AG4606 (RR/STS)	55	12.8	58	11.9	51	13.7
Armor	48-J3 (RR)	54	13.1	58	12.1	50	14.1
NK	S 46-U6 Brand (RR)	52	12.7	56	11.9	49	13.5
Croplan	RC 4877 RR	52	12.5	57	11.5	48	13.5
Average (bu/a)		**58**	**12.8**	**60**	**11.8**	**55**	**13.7**

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

Table 30. Mean yields † of 42 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Knoxville	Spring Hill Irr.	Spring Hill Non-Irr.	Springfield	Milan Irr.	Milan Non-Irr.	Ames
					bu/a				
Armor	55-A5 (RR)	64 ± 2	78	52	55	54	74	68	68
Morsoy	RT 5388N (RR)	64 ± 2	76	44	60	60	69	68	69
TN Exp	TN06-140RR	63 ± 2	76	53	55	63	71	57	66
Pioneer	95Y40 (RR)	63 ± 2	71	45	57	63	85	68	51
Delta Grow	5300 RR (STS)	61 ± 2	58	46	58	63	75	61	64
Delta Grow	5450 RR	61 ± 2	65	44	54	61	75	65	60
Trisler Seed	Trisoy 5484RR (CN)	60 ± 2	67	51	60	58	71	58	58
Dyna-Gro	33X55 (RR)	60 ± 2	64	44	52	65	73	56	68
USG	75M49 (RR)	60 ± 2	70	47	55	55	75	65	51
Schillinger Seed	5440 R	59 ± 2	59	40	55	66	75	62	60
USG	7553nRS	59 ± 2	67	42	53	58	72	67	55
USG	75M16 (RR/STS)	59 ± 2	56	52	54	56	75	62	58
Dyna-Gro	35F55 (RR)	59 ± 2	47	52	62	53	69	62	66
Progeny	5319 RR	57 ± 2	43	53	65	51	62	59	68
Terral	TV 55R15 (RR)	57 ± 2	36	59	65	48	65	57	68
Schillinger Seed	557 RC	57 ± 2	59	49	57	57	66	56	53
Terral	TV 54R28 (RR)	55 ± 2	51	53	51	59	63	55	54
Delta Grow	5555 RR	55 ± 2	41	50	64	49	66	58	57
Progeny	5309 RR (STS)	55 ± 2	58	39	40	53	74	66	54
Hornbeck	HBK R 5525 (RR)	54 ± 2	50	51	54	54	61	56	52
USG	75J32 (RR)	53 ± 2	58	42	46	53	69	56	50
KS	KS 5507NRR	53 ± 2	75	42	50	49	52	47	58
Armor	53-Z5 (RR/STS)	53 ± 2	51	36	60	57	62	59	44
MO Exp	S06-3095 (RR)	53 ± 2	68	48	51	52	61	52	37
Dyna-Gro	32A53 (RR)	52 ± 2	43	50	59	53	60	49	52
Dairyland	8512 RR	52 ± 2	61	35	41	56	65	64	42
NK	S 52-F2 Brand (RR)	52 ± 2	53	50	45	48	54	50	61
MO Exp	S06-3027 (RR)	52 ± 2	63	47	48	43	61	49	49
USG	75Z38 (RR)	51 ± 2	50	52	62	40	50	46	59
Delta Grow	5160 RR (STS)	51 ± 2	74	31	33	66	71	58	26
Croplan	RC 5419 RR	51 ± 2	27	47	61	39	58	62	61
Asgrow	DP 5335 RR/S	51 ± 2	55	33	37	58	75	60	36
Asgrow	AG5503 (RR)	50 ± 2	58	29	40	56	77	55	37
Dyna-Gro	33B52 (RR)	50 ± 2	46	48	57	46	55	52	45
Hornbeck	HBK R 5226 (RR)	50 ± 2	47	43	55	49	51	52	49
Progeny	5409 RR	49 ± 2	61	37	41	53	68	48	36
Delta Grow	5280 RR	48 ± 2	38	47	63	46	55	44	45
Morsoy	RT 5168N (RR)	48 ± 2	61	38	49	45	62	56	23
Progeny	5218 RR	47 ± 2	41	44	61	50	49	46	39
Hornbeck	HBK R 5229 (RR)	47 ± 2	35	45	49	54	55	56	33
Delta Grow	5170 RR	43 ± 2	60	25	35	55	63	44	23
Dairyland	8509 RR	42 ± 2	39	31	48	53	60	47	17
Average (bu/a)		**54**	**56**	**44**	**53**	**54**	**66**	**57**	**50**
L.S.D.$_{.05}$ (bu/a)		**4**	**14**	**7**	**10**	**11**	**12**	**11**	**14**
C.V. (%)		**13.0**	**15.3**	**11.3**	**12.1**	**12.6**	**10.9**	**12.1**	**16.9**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 31. Mean yields † and agronomic characteristics of 42 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in seven environments in Tennessee during 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=7)	Height (n=7)	Maturity (n=6)	Shattering (n=4)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	-------Score-------		%	%	%	0 - 9	index
Armor	55-A5 (RR)	64 ± 2	15.1	1.5	34	150	1.0	2.3	39.7	22.2	43.3	1.3	5.9
Morsoy	RT 5388N (RR)	64 ± 2	14.3	1.5	36	147	1.0	2.2	39.0	22.5	46.7	1.7	10.2
TN Exp	TN06-140RR	63 ± 2	14.9	2.0	36	149	1.0	2.0	38.1	22.0	13.3	1.7	2.8
Pioneer	95Y40 (RR)	63 ± 2	14.0	2.0	37	145	1.0	2.8	40.3	22.4	85.0	2.7	26.3
Delta Grow	5300 RR (STS)	61 ± 2	14.4	1.7	39	146	1.0	2.5	39.2	21.9	68.3	2.3	22.0
Delta Grow	5450 RR	61 ± 2	16.0	1.8	39	155	1.0	2.0	39.7	21.6	86.7	2.7	25.6
Trisler Seed	Trisoy 5484RR (CN)	60 ± 2	14.9	2.1	37	147	1.0	2.5	38.7	21.6	58.3	2.3	18.7
Dyna-Gro	33X55 (RR)	60 ± 2	15.8	2.0	37	151	1.0	2.0	40.4	21.7	61.7	2.3	19.8
USG	75M49 (RR)	60 ± 2	14.6	1.5	34	146	1.0	2.5	40.4	22.4	66.7	2.3	17.4
Schillinger Seed	5440 R	59 ± 2	14.1	1.5	34	148	1.0	2.5	40.9	21.6	96.7	3.7	39.6
USG	7553nRS	59 ± 2	13.9	1.5	37	149	1.0	2.0	39.1	21.9	85.0	2.3	22.2
USG	75M16 (RR/STS)	59 ± 2	14.3	1.8	39	144	1.0	2.8	39.4	21.9	68.3	3.0	29.4
Dyna-Gro	35F55 (RR)	59 ± 2	15.0	2.7	39	148	1.0	2.3	40.6	21.3	93.3	5.0	53.3
Progeny	5319 RR	57 ± 2	15.0	2.7	41	147	1.0	2.3	40.4	21.2	95.0	4.3	45.9
Terral	TV 55R15 (RR)	57 ± 2	15.4	2.6	40	149	1.0	2.3	40.5	21.1	95.0	4.7	49.3
Schillinger Seed	557 RC	57 ± 2	14.6	1.7	38	149	1.0	2.3	40.5	21.1	68.3	4.3	37.2
Terral	TV 54R28 (RR)	55 ± 2	14.3	2.4	39	145	1.0	2.5	40.3	22.1	96.7	3.3	35.9
Delta Grow	5555 RR	55 ± 2	14.9	2.5	39	147	1.0	2.3	40.0	21.1	76.7	5.3	56.7
Progeny	5309 RR (STS)	55 ± 2	14.5	2.3	47	146	1.0	4.0	41.6	22.2	68.3	2.7	22.6
Hornbeck	HBK R 5525 (RR)	54 ± 2	14.8	2.0	36	148	1.0	2.2	39.4	22.2	71.7	3.3	30.4
USG	75J32 (RR)	53 ± 2	14.1	1.4	38	142	1.0	2.5	40.1	21.3	56.7	2.3	21.9
KS	KS 5507NRR	53 ± 2	15.3	1.3	34	147	1.0	2.2	38.5	21.3	10.0	1.0	1.1
Armor	53-Z5 (RR/STS)	53 ± 2	13.9	1.2	33	147	1.0	2.7	38.7	22.3	96.7	3.8	41.7
MO Exp	S06-3095 (RR)	53 ± 2	14.4	3.0	41	143	1.0	2.5	38.9	21.3	23.3	1.3	4.4
Dyna-Gro	32A53 (RR)	52 ± 2	14.7	2.1	35	145	1.0	2.8	40.4	22.0	71.7	3.3	27.6
Dairyland	8512 RR	52 ± 2	14.2	2.0	44	144	1.1	4.2	41.6	22.6	93.3	2.7	27.8
NK	S 52-F2 Brand (RR)	52 ± 2	14.3	2.3	36	144	1.0	2.3	40.8	22.4	83.3	2.3	22.0
MO Exp	S06-3027 (RR)	52 ± 2	14.3	3.2	42	141	1.0	2.8	40.2	20.5	5.3	1.0	0.6
USG	75Z38 (RR)	51 ± 2	15.3	2.6	34	149	1.0	2.8	40.8	21.8	71.7	3.3	29.8
Delta Grow	5160 RR (STS)	51 ± 2	13.8	2.2	44	135	1.4	4.3	40.3	23.3	56.7	1.8	11.5
Croplan	RC 5419 RR	51 ± 2	15.5	2.6	41	149	1.0	2.7	40.3	21.1	100.0	6.0	66.7
Asgrow	DP 5335 RR/S	51 ± 2	14.1	2.1	44	141	1.3	4.2	41.1	22.2	83.3	3.3	32.6
Asgrow	AG5503 (RR)	50 ± 2	13.8	1.5	41	136	1.2	3.7	38.9	23.8	85.0	2.3	22.6
Dyna-Gro	33B52 (RR)	50 ± 2	14.2	2.7	33	143	1.0	2.8	39.4	22.6	93.3	3.3	35.6
Hornbeck	HBK R 5226 (RR)	50 ± 2	14.7	2.5	36	146	1.0	2.5	40.1	21.9	100.0	5.0	55.6
Progeny	5409 RR	49 ± 2	14.0	2.1	47	143	1.4	3.3	41.4	21.6	60.0	2.3	19.6
Delta Grow	5280 RR	48 ± 2	14.8	2.5	34	148	1.0	2.7	40.8	22.0	93.3	5.0	52.6

Table 31 (continued)

Brand	Variety ‡	Avg. Yield ± Std Err. (n=7)	Moisture § (n=7)	Lodging (n=7)	Height (n=7)	Maturity (n=6)	Shattering (n=4)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	-------Score-------		%	%	%	0 - 9	index
Morsoy	RT 5168N (RR)	48 ± 2	13.6	2.5	42	135	1.0	4.2	42.0	21.8	86.7	3.3	34.1
Progeny	5218 RR	47 ± 2	14.8	2.2	34	146	1.0	2.7	41.1	21.9	96.7	4.7	50.7
Hornbeck	HBK R 5229 (RR)	47 ± 2	14.2	2.2	39	141	1.0	2.7	39.6	21.8	95.0	4.3	46.1
Delta Grow	5170 RR	43 ± 2	12.9	1.2	35	134	1.1	4.3	39.5	23.4	45.0	1.7	8.9
Dairyland	8509 RR	42 ± 2	13.8	2.3	44	135	1.1	3.7	40.9	22.3	100.0	5.0	55.6
	Average	**54**	**14.5**	**2.1**	**38**	**145**	**1.0**	**2.8**	**40.1**	**21.9**	**72.7**	**3.1**	**29.5**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Maturity = days after planting (DAP).

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 9/3/09.

Table 32. Mean yields † and SDS Ratings of 42 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated at Knoxville, Tennessee during 2009.

			SDS		
Brand	**Variety ‡**	**Avg. Yield Knoxville**	**DI (n=1)**	**DS (n=1)**	**DX (n=1)**
			%	0 - 9	index
MO Exp	S06-3027 (RR)	63	5.3	1.0	0.6
KS	KS 5507NRR	75	10.0	1.0	1.1
TN Exp	TN06-140RR	76	13.3	1.7	2.8
MO Exp	S06-3095 (RR)	68	23.3	1.3	4.4
Armor	55-A5 (RR)	78	43.3	1.3	5.9
Delta Grow	5170 RR	60	45.0	1.7	8.9
Morsoy	RT 5388N (RR)	76	46.7	1.7	10.2
Delta Grow	5160 RR (STS)	74	56.7	1.8	11.5
USG	75M49 (RR)	70	66.7	2.3	17.4
Trisler Seed	Trisoy 5484RR (CN)	67	58.3	2.3	18.7
Progeny	5409 RR	61	60.0	2.3	19.6
Dyna-Gro	33X55 (RR)	64	61.7	2.3	19.8
USG	75J32 (RR)	58	56.7	2.3	21.9
Delta Grow	5300 RR (STS)	58	68.3	2.3	22.0
NK	S 52-F2 Brand (RR)	53	83.3	2.3	22.0
USG	7553nRS	67	85.0	2.3	22.2
Asgrow	AG5503 (RR)	58	85.0	2.3	22.6
Progeny	5309 RR (STS)	58	68.3	2.7	22.6
Delta Grow	5450 RR	65	86.7	2.7	25.6
Pioneer	95Y40 (RR)	71	85.0	2.7	26.3
Dyna-Gro	32A53 (RR)	43	71.7	3.3	27.6
Dairyland	8512 RR	61	93.3	2.7	27.8
USG	75M16 (RR/STS)	56	68.3	3.0	29.4
USG	75Z38 (RR)	50	71.7	3.3	29.8
Hornbeck	HBK R 5525 (RR)	50	71.7	3.3	30.4
Asgrow	DP 5335 RR/S	55	83.3	3.3	32.6
Morsoy	RT 5168N (RR)	61	86.7	3.3	34.1
Dyna-Gro	33B52 (RR)	46	93.3	3.3	35.6
Terral	TV 54R28 (RR)	51	96.7	3.3	35.9
Schillinger Seed	557 RC	59	68.3	4.3	37.2
Schillinger Seed	5440 R	59	96.7	3.7	39.6
Armor	53-Z5 (RR/STS)	51	96.7	3.8	41.7
Progeny	5319 RR	43	95.0	4.3	45.9
Hornbeck	HBK R 5229 (RR)	35	95.0	4.3	46.1
Terral	TV 55R15 (RR)	36	95.0	4.7	49.3
Progeny	5218 RR	41	96.7	4.7	50.7
Delta Grow	5280 RR	38	93.3	5.0	52.6
Dyna-Gro	35F55 (RR)	47	93.3	5.0	53.3
Dairyland	8509 RR	39	100.0	5.0	55.6
Hornbeck	HBK R 5226 (RR)	47	100.0	5.0	55.6
Delta Grow	5555 RR	41	76.7	5.3	56.7
Croplan	RC 5419 RR	27	100.0	6.0	66.7
Average (bu/a)		**56**	**72.7**	**3.1**	**29.5**
L.S.D.$_{.05}$ (bu/a)		**14**			
C.V. (%)		**15.3**			

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size on 9/3/09.

Varieties with a higher DX value are more susceptible to SDS.

Table 33. Mean yields † of 29 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2008 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Knoxville	Spring Hill Irr.	Spring Hill Non-Irr.	Springfield	Milan Irr.	Milan Non-Irr.	Ames
		bu/a							
Morsoy	RT 5388N (RR)	59 ± 1	53	48	55	64	71	56	63
TN Exp	TN06-140RR	58 ± 1	56	50	51	66	70	51	60
Trisler Seed	Trisoy 5484RR (CN)	57 ± 1	47	52	56	63	73	52	58
Armor	55-A5 (RR)	57 ± 1	52	50	50	60	67	55	64
Delta Grow	5450 RR	56 ± 1	54	44	49	65	69	53	58
Dyna-Gro	33X55 (RR)	56 ± 1	48	47	49	66	68	48	64
Dyna-Gro	35F55 (RR)	55 ± 1	40	54	57	57	61	54	65
Delta Grow	5300 RR (STS)	55 ± 1	45	47	51	65	65	53	59
Terral	TV 55R15 (RR)	55 ± 1	34	56	59	58	63	52	60
USG	7553nRS	54 ± 1	47	44	47	66	68	54	53
Delta Grow	5555 RR	54 ± 1	42	53	59	57	62	47	55
Terral	TV 54R28 (RR)	54 ± 1	42	57	49	59	61	50	56
Hornbeck	HBK R 5525 (RR)	53 ± 1	41	52	50	62	60	48	56
NK	S 52-F2 Brand (RR)	52 ± 1	43	54	46	59	55	47	62
Schillinger Seed	557 RC	51 ± 1	44	43	46	62	65	50	50
Armor	53-Z5 (RR/STS)	51 ± 1	37	43	55	59	63	52	45
Asgrow	AG5503 (RR)	50 ± 1	43	42	42	61	70	50	45
USG	75Z38 (RR)	50 ± 1	42	51	56	52	49	43	57
KS	KS 5507NRR	50 ± 1	53	43	49	56	53	45	52
USG	75J32 (RR)	49 ± 1	43	44	42	58	61	49	49
Dyna-Gro	33B52 (RR)	49 ± 1	37	47	53	55	54	47	49
Hornbeck	HBK R 5226 (RR)	49 ± 1	41	49	48	59	49	42	53
Dairyland	8512 RR	49 ± 1	41	42	40	57	62	53	45
Delta Grow	5280 RR	48 ± 1	36	47	51	57	53	43	51
Morsoy	RT 5168N (RR)	48 ± 1	42	46	44	54	61	50	39
Delta Grow	5160 RR (STS)	48 ± 1	43	36	36	63	64	51	41
Progeny	5218 RR	48 ± 1	35	48	54	59	51	41	46
Delta Grow	5170 RR	45 ± 1	39	39	35	59	60	44	36
Dairyland	8509 RR	43 ± 1	27	40	45	57	54	46	35
Average (bu/a)		**52**	**43**	**47**	**49**	**60**	**61**	**49**	**53**
L.S.D.$_{.05}$ (bu/a)		**3**	**9**	**8**	**8**	**9**	**8**	**8**	**10**
C.V. (%)		**11.8**	**16.4**	**12.9**	**11.7**	**9.9**	**9.2**	**11.2**	**12.8**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 34. Mean yields † and agronomic characteristics of 29 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in seven environments (n=14) in Tennessee for two years, 2008 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=14)	Moisture § (n=14)	Lodging (n=12)	Height (n=14)	Maturity (n=13)	Shattering (n=7)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)
		bu/a	%	Score	in.	DAP	---------Score---------		%	%
Morsoy	RT 5388N (RR)	59 ± 1	13.5	1.4	35	147	1.0	1.9	39.7	22.0
TN Exp	TN06-140RR	58 ± 1	13.8	1.8	35	148	1.1	2.0	39.4	21.3
Trisler Seed	Trisoy 5484RR (CN)	57 ± 1	13.7	1.9	36	148	1.0	2.2	39.7	21.4
Armor	55-A5 (RR)	57 ± 1	14.2	1.4	31	149	1.1	2.8	40.4	20.8
Delta Grow	5450 RR	56 ± 1	14.7	1.6	36	154	1.0	2.1	40.5	20.9
Dyna-Gro	33X55 (RR)	56 ± 1	14.4	1.8	36	150	1.1	1.8	41.7	21.1
Dyna-Gro	35F55 (RR)	55 ± 1	14.0	2.4	39	148	1.0	2.2	41.5	20.5
Delta Grow	5300 RR (STS)	55 ± 1	13.5	1.6	37	147	1.1	2.2	40.0	21.3
Terral	TV 55R15 (RR)	55 ± 1	14.1	2.5	39	149	1.0	2.2	41.6	20.2
USG	7553nRS	54 ± 1	13.1	1.5	36	148	1.0	2.0	40.3	21.7
Delta Grow	5555 RR	54 ± 1	13.9	2.2	38	147	1.0	2.1	40.7	20.7
Terral	TV 54R28 (RR)	54 ± 1	13.5	2.2	37	146	1.2	2.0	41.7	21.1
Hornbeck	HBK R 5525 (RR)	53 ± 1	14.1	1.8	35	148	1.1	2.1	40.5	21.6
NK	S 52-F2 Brand (RR)	52 ± 1	13.6	2.0	34	145	1.0	2.2	41.8	21.3
Schillinger Seed	557 RC	51 ± 1	13.5	1.6	35	149	1.1	2.3	41.0	20.8
Armor	53-Z5 (RR/STS)	51 ± 1	13.3	1.3	32	147	1.0	2.1	39.1	22.2
Asgrow	AG5503 (RR)	50 ± 1	13.2	1.4	38	140	1.1	3.0	38.7	23.2
USG	75Z38 (RR)	50 ± 1	14.2	2.4	33	147	1.1	2.5	41.2	21.2
KS	KS 5507NRR	50 ± 1	14.2	1.3	32	148	1.1	2.3	38.7	20.9
USG	75J32 (RR)	49 ± 1	13.2	1.4	35	145	1.1	2.6	41.0	20.7
Dyna-Gro	33B52 (RR)	49 ± 1	13.3	2.3	32	144	1.0	2.2	39.3	22.4
Hornbeck	HBK R 5226 (RR)	49 ± 1	14.0	2.5	33	146	1.1	2.3	41.1	21.3
Dairyland	8512 RR	49 ± 1	13.4	1.8	42	145	1.3	3.6	41.5	22.1
Delta Grow	5280 RR	48 ± 1	14.0	2.4	33	147	1.2	2.5	41.2	21.5
Morsoy	RT 5168N (RR)	48 ± 1	13.0	2.1	39	139	1.4	3.9	41.5	21.8
Delta Grow	5160 RR (STS)	48 ± 1	13.2	1.9	40	139	1.8	3.2	40.1	22.9
Progeny	5218 RR	48 ± 1	13.9	2.1	33	146	1.2	2.4	41.4	21.4
Delta Grow	5170 RR	45 ± 1	12.6	1.2	33	138	1.3	3.6	38.8	22.8
Dairyland	8509 RR	43 ± 1	13.1	2.1	41	139	1.7	3.1	40.6	21.8
	Average	**52**	**13.7**	**1.8**	**36**	**146**	**1.2**	**2.5**	**40.5**	**21.5**

† All yields are adjusted to 13% moisture. ‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name. § Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP). Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 35. Mean yields † of 14 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2007 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=15)	Knoxville	Springfield	Milan		Ames
					Irr.	Non-Irr.	
		----------bu/a----------					
Delta Grow	5450 RR	54 ± 1	50	49	68	49	54
Dyna-Gro	33X55 (RR)	52 ± 1	43	48	65	46	56
USG	7553nRS	51 ± 1	44	49	65	50	47
Schillinger Seed	557 RC	50 ± 1	45	45	64	50	47
Delta Grow	5300 RR (STS)	50 ± 1	44	48	61	47	49
Hornbeck	HBK R 5525 (RR)	48 ± 1	40	46	59	45	48
NK	S 52-F2 Brand (RR)	48 ± 1	44	44	54	45	53
USG	75J32 (RR)	47 ± 1	41	42	61	45	44
KS	KS 5507NRR	46 ± 1	53	42	50	40	45
Dairyland	8512 RR	46 ± 1	38	44	62	44	40
Delta Grow	5160 RR (STS)	45 ± 1	40	45	61	43	35
Dyna-Gro	33B52 (RR)	44 ± 1	37	41	54	44	45
Hornbeck	HBK R 5226 (RR)	44 ± 1	40	46	46	39	47
Dairyland	8509 RR	39 ± 1	29	42	51	40	31
Average (bu/a)		**47**	**42**	**45**	**59**	**45**	**46**
L.S.D.$_{.05}$ (bu/a)		**4**	**9**	**7**	**9**	**7**	**8**
C.V. (%)		**12.4**	**15.4**	**11.6**	**11.3**	**11.2**	**13.1**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 36. Mean yields † and agronomic characteristics of 14 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in five environments (n=15) in Tennessee for three years, 2007 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=15)	Moisture § (n=15)	Lodging (n=10)	Height (n=14)	Maturity (n=12)	Shattering (n=5)	Leaf Retention (n=1)	Seed Quality (n=4)	Protein (n=4)	Oil (n=4)
		bu/a	%	Score	in.	DAP	----------Score----------			%	%
Delta Grow	5450 RR	54 ± 1	16.0	1.7	37	156	1.0	1.3	2.2	41.6	20.4
Dyna-Gro	33X55 (RR)	52 ± 1	14.9	1.7	37	151	1.0	1.1	1.9	43.6	20.2
USG	7553nRS	51 ± 1	13.4	1.7	37	148	1.0	1.1	2.1	41.6	21.0
Schillinger Seed	557 RC	50 ± 1	13.8	1.7	36	150	1.0	1.2	2.2	42.3	20.3
Delta Grow	5300 RR (STS)	50 ± 1	13.8	1.8	37	146	1.0	1.3	2.2	41.7	20.5
Hornbeck	HBK R 5525 (RR)	48 ± 1	14.6	1.9	37	149	1.0	1.0	2.3	42.3	20.7
NK	S 52-F2 Brand (RR)	48 ± 1	13.7	2.1	35	146	1.0	1.1	2.1	43.0	20.6
USG	75J32 (RR)	47 ± 1	13.7	1.4	36	146	1.0	1.1	2.6	42.4	20.3
KS	KS 5507NRR	46 ± 1	14.8	1.7	33	148	1.0	1.1	2.4	40.0	20.3
Dairyland	8512 RR	46 ± 1	14.1	1.7	42	148	1.0	1.7	3.5	42.5	21.2
Delta Grow	5160 RR (STS)	45 ± 1	13.6	2.1	40	140	1.6	1.0	3.3	42.0	22.0
Dyna-Gro	33B52 (RR)	44 ± 1	13.6	2.6	34	145	1.0	1.0	2.2	40.8	21.5
Hornbeck	HBK R 5226 (RR)	44 ± 1	14.2	2.7	35	147	1.0	1.0	2.1	42.5	20.4
Dairyland	8509 RR	39 ± 1	13.5	2.5	40	139	1.7	1.0	3.0	42.0	21.2
	Average	**47**	**14.1**	**2.0**	**37**	**147**	**1.1**	**1.1**	**2.4**	**42.0**	**20.8**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Leaf Retention (at harvest) = 1 to 5 scale; where 1 = < 5% of plants holding leaves at harvest maturity; 5=95+% of plants holding leaves and green stems at harvest maturity.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 37. Yields † of 21 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties in 14 County Standard Tests in Tennessee during 2009.

MS	Brand/Variety	Avg. Yield	Moist‡	Coffee	Crockett	Dyer	Fayette	Franklin	Gibson	Hardin	Haywood	Lake	Lauderdale	Lincoln	Madison	Obion	Weakley
		bu/a	%	5/18 §	6/26	6/17	6/19	5/29	6/29	6/17	6/26	6/30	6/24	6/2	6/23	6/9	6/25
A	Pioneer 95Y01 (RR)	56.9	12.8	63.7	60.6	58.7	62.2	73.1	57.2	55.3	36.3	54.2	55.1	57.7	55.5	56.8	49.7
AB	*Dairyland 8509	54.9	12.7	67.8	57.2	60.3	62.5	68.2	56.2	61.0	31.5	54.7	51.7	51.3	51.0	49.5	45.8
ABC	Morsoy RT5168N (RR)	54.5	12.8	54.4	57.0	54.5	61.7	76.1	59.6	56.6	31.6	52.6	54.1	58.1	48.9	53.4	44.4
ABCD	*Asgrow DK5068	54.0	12.7	57.8	51.7	57.2	60.1	70.4	59.7	58.9	31.1	50.5	57.2	48.8	48.8	55.1	49.0
ABCDE	*Asgrow DP5335 (RR/STS)	53.9	12.9	60.8	58.7	55.8	57.4	70.8	55.9	57.4	25.1	47.6	49.4	59.4	55.3	57.6	43.2
BCDEF	Pioneer 95Y40 (RR)	53.2	12.8	65.8	47.8	53.9	64.2	69.4	55.4	56.0	33.0	47.5	48.8	56.8	52.0	54.5	39.9
BCDEF	USG 7553nRS (RR/STS) Cruiser	52.5	12.6	57.2	49.5	53.4	58.3	74.1	71.3	56.6	36.0	43.4	50.0	50.1	50.2	44.5	40.4
CDEFG	Croplan RC5007 (RR/STS)	51.8	12.9	70.0	48.2	53.7	60.0	60.6	52.8	55.0	29.8	40.8	51.4	54.7	51.1	50.0	46.9
CDEFG	**USG Allen RR	51.8	13.2	57.9	48.9	48.3	56.0	74.6	61.8	59.6	36.3	46.1	47.8	53.4	47.1	44.0	43.1
DEFGH	USG 7553nRS (RR/STS)	51.3	12.6	55.3	45.7	51.0	61.0	72.5	58.8	57.8	30.7	47.7	50.9	50.2	44.6	46.2	45.7
DEFGH	Armor 53-Z5 (RR/STS)	51.2	12.7	63.5	50.8	51.3	61.7	69.2	46.8	59.7	28.3	48.5	48.6	53.6	39.9	44.8	50.1
DEFGH	Morsoy RT5388N (RR)	51.0	13.1	64.1	51.1	49.6	59.1	65.7	47.1	56.1	32.1	48.5	48.6	52.7	43.2	49.9	46.3
EFGH	Dairyland 8512	50.9	12.7	60.4	47.3	55.8	57.6	62.6	48.6	57.4	39.9	43.4	47.9	53.0	48.7	48.8	41.5
FGHI	Croplan RC5663 (RR)	50.7	13.3	64.5	49.0	49.8	59.5	66.7	44.4	56.5	32.0	46.2	49.1	55.7	49.1	47.6	39.3
FGHI	Trisoy 5484RR(CN)	50.4	13.0	51.0	45.5	50.5	62.3	65.9	47.3	55.6	30.6	46.4	48.6	58.9	44.3	54.8	43.9
FGHI	Steyer 5210 RR	50.2	12.5	60.7	50.6	52.7	57.2	66.7	50.3	54.2	22.7	46.1	55.0	51.4	41.8	49.0	44.2
GHIJ	Progeny 5218 RR	49.2	13.3	69.2	46.0	47.0	58.5	62.7	59.4	54.4	33.0	48.6	47.4	51.5	45.3	31.1	33.9
HIJ	Ag Genetics South AGS568	48.3	13.6	59.1	47.3	43.6	60.6	70.1	50.0	55.8	26.6	42.4	47.0	51.5	46.3	46.1	30.2
IJ	***Dyna-Gro 33B52 (RR)	47.7	13.1	64.3	50.6	51.1	51.8	61.7	47.9	57.2	22.7	38.0	46.7	56.5	38.8	41.6	39.4
IJ	NK S52-F2 Brand (RR)	47.7	13.4	62.5	44.7	49.7	57.5	63.7	44.1	53.8	33.9	45.1	45.8	52.1	46.8	31.7	35.8
J	Dyna-Gro 32A53 (RR)	46.7	13.5	61.3	38.8	47.0	57.7	59.9	53.4	53.6	29.2	41.9	46.6	53.0	41.4	38.1	32.5
	Average (bu/a)	**51.4**	**13.0**	**61.5**	**49.9**	**52.1**	**59.4**	**67.8**	**53.7**	**56.6**	**31.1**	**46.7**	**49.9**	**53.8**	**47.1**	**47.4**	**42.1**

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

Each variety was evaluated in a large strip-plot at each loction, thus each county test was considered as one replication of the test in calculating the average yield and in conducting the statistical analysis to determine significant differences (MS).

Varieties denoted with an asterisk (*), (**), or (***) were in the top performing group in 2008, 2007, and/or 2006, repectively.

MS= Varieties with any MS letter in common are not statistically different at the 5% level of probability.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 38. Yields † and disease ratings § of 21 early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in Tennessee County Standard Tests during 2009.

MS	Brand/Variety	CST Avg. Yield (n=14)	Moisture ‡	Research and Education Center at Milan							
				SDS	Frogeye	Anthracnose	Sprayed ¶ Yield	Unsprayed Yield	SCN Race 2	SCN Race 3	SCN Race 14
		bu/a	%	2007 / 08 / 2009	2007 / 08 / 2009	2008 / 09	bu/a	bu/a	2009	2009	2009
A	Pioneer 95Y01 (RR)	56.9	12.8	/ / 4.0	/ / 3.3	/ 4.0	62.5	59.0	S	S	S
AB	*Dairyland 8509	54.9	12.7	1.0 / 0.0 / 7.0	5.0 / 1.7 / 0.0	3.7 / 5.7	57.6	57.9	S	S	S
ABC	Morsoy RT5168N (RR)	54.5	12.8	/ / 4.3	/ / 6.7	/ 8.0	65.7	55.2	S	S	S
ABCD	*Asgrow DK5068	54.0	12.7	/ 0.8 / 3.3	/ 10.0 / 5.0	4.3 / 9.3	67.8	55.9	S	S	S
ABCDE	*Asgrow DP5335 (RR/STS)	53.9	12.9	/ 0.3 / 3.0	/ 7.3 / 5.0	2.7 / 1.3	56.9	54.4	S	S	S
BCDEF	Pioneer 95Y40 (RR)	53.2	12.8	/ / 4.0	/ / 2.3	/ 1.3	73.2	68.0	S	MR	S
BCDEF	USG 7553nRS (RR/STS) Cruiser	52.5	12.6	/ / 3.3	/ / 3.7	/ 1.0	64.9	61.1	S	S	S
CDEFG	Croplan RC5007 (RR/STS)	51.8	12.9	/ / 3.3	/ / 2.3	/ 2.7	66.1	53.0	S	S	S
CDEFG	**USG Allen RR	51.8	13.2	1.0 / 1.0 / 4.3	5.0 / 3.0 / 2.7	2.3 / 2.0	65.4	58.7	S	S	S
DEFGH	USG 7553nRS (RR/STS)	51.3	12.6	/ / 2.7	/ / 2.0	/ 1.0	68.0	61.2	S	S	S
DEFGH	Armor 53-Z5 (RR/STS)	51.2	12.7	/ 0.0 / 5.3	/ 0.0 / 0.7	2.3 / 2.3	63.7	57.3	S	MR	S
DEFGH	Morsoy RT5388N (RR)	51.0	13.1	/ / 3.7	/ / 0.0	/ 2.3	70.9	64.1	S	MR	S
EFGH	Dairyland 8512	50.9	12.7	0.0 / 0.7 / 2.3	0.0 / 0.0 / 0.0	2.7 / 2.7	60.1	55.4	S	S	S
FGHI	Croplan RC5663 (RR)	50.7	13.3	/ 0.0 / 2.3	/ 0.0 / 0.3	2.0 / 1.7	67.0	56.8	S	MR	S
FGHI	Trisoy 5484RR(CN)	50.4	13.0	/ / 2.7	/ / 2.3	/ 2.0	69.0	61.3	S	MR	S
FGHI	Steyer 5210 RR	50.2	12.5	/ / 5.0	/ / 0.7	/ 4.7	62.7	54.0	S	S	S
GHIJ	Progeny 5218 RR	49.2	13.3	/ / 8.7	/ / 0.0	/ 2.0	55.6	41.9	S	S	S
HIJ	Ag Genetics South AGS568	48.3	13.6	1.0 / 0.3 / 4.7	0.0 / 0.0 / 0.0	3.8 / 1.3	65.4	57.5	S	S	S
IJ	***Dyna-Gro 33B52 (RR)	47.7	13.1	1.0 / 1.0 / 5.7	1.0 / 0.0 / 0.0	2.3 / 3.7	61.9	55.8	S	S	S
IJ	NK S52-F2 Brand (RR)	47.7	13.4	/ / 4.3	/ / 0.0	/ 1.0	65.3	59.2	S	S	S
J	Dyna-Gro 32A53 (RR)	46.7	13.5	/ / 6.7	/ / 0.0	/ 1.0	63.2	54.8	S	S	S
	Average (bu/a)	**51.4**	**13.0**				**64.4**	**57.3**			

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Disease ratings for SDS, Frogeye Leaf Spot, and Anthracnose are from 0-10, where 0=no disease & 10=maximum level of disease or plant death. SDS = Sudden Death Syndrome.

¶ Sprayed plots at Milan treated with Headline @ 6 oz./Acre + 0.25% Induce at 20 gpa at R3 growth stage.

Disease ratings compiled by Dr. Melvin Newman from replicated plots at the Research and Education Center at Milan.

SCN ratings; S= susceptible, MS = moderately susceptible, MR = moderately resistant R = resistant. (Race 2 SCN HG Type 1.2.5.7)

SCN Greenhouse Ratings compiled by Dr. Pat Donald, Research Plant Path., USDA-ARS, West TN REC.

MS= Varieties with one or more letters in common are not statistically different at the .05 level of probability.

Varieties denoted with an asterisk (*), (**), and/or (***) were in the top performing group in 2008, 2007, and/or 2006, respectively.

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops.

Table 39. Overall average yields † and moistures ‡ of 16 Early Maturity Group V (5.0 - 5.5) Roundup Ready soybean varieties evaluated in County Standard Tests (n=14) and Research and Education Centers (n=7) in Tennessee in 2009.

		Averages of CST & REC Tests		County Standard Trials		Research and Education Center Trials	
Brand	Variety	Avg. Yield	Moisture	Avg. Yield	Moisture	Avg. Yield	Moisture
		bu/a	%	bu/a	%	bu/a	%
Pioneer	95Y40 (RR)	58	13.4	53	12.8	63	14.0
Morsoy	RT 5388N (RR)	58	13.7	51	13.1	64	14.3
USG	7553nRS (Cruiser)	57	13.3	53	12.6	61	13.9
USG	Allen	56	13.7	52	13.2	60	14.3
Trisler Seed	Trisoy 5484RR (CN)	55	13.9	50	13.0	60	14.9
USG	7553nRS	55	13.3	51	12.6	59	13.9
Asgrow	DP 5335 RR/S	52	13.5	54	12.9	51	14.1
Armor	53-Z5 (RR/STS)	52	13.3	51	12.7	53	13.9
Dairyland	8512 RR	51	13.5	51	12.7	52	14.2
Morsoy	RT 5168N (RR)	51	13.2	54	12.8	48	13.6
Croplan	RC 5663 RR	51	13.5	51	13.3	51	13.6
NK	S 52-F2 Brand (RR)	50	13.8	48	13.4	52	14.3
Dyna-Gro	32A53 (RR)	49	14.1	47	13.5	52	14.7
Dyna-Gro	33B52 (RR)	49	13.6	48	13.1	50	14.2
Dairyland	8509 RR	48	13.3	55	12.7	42	13.8
Progeny	5218 RR	48	14.1	49	13.3	47	14.8
Average (bu/a)		**53**	**13.6**	**51**	**13.0**	**54**	**14.2**

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

Table 40. Mean yields † of eight Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in six environments in Tennessee during 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=6)	Knoxville	Spring Hill Irr.	Spring Hill Non-Irr.	Springfield	Milan Irr.	Milan Non-Irr.
		bu/a						
USG	Allen	60 ± 2	65	46	58	57	66	66
Asgrow	AG5606 (RR)	59 ± 2	65	44	53	57	69	67
Progeny	5706 RR	58 ± 2	60	45	50	58	67	67
Progeny	5622 RR	55 ± 2	48	51	54	57	58	63
Progeny	5650 RR	55 ± 2	58	44	51	56	61	62
USG	75Z98 (RR)	53 ± 2	47	47	55	51	60	57
Morsoy	RT 5688N (RR)	52 ± 2	38	48	60	54	59	56
Croplan	RC 5663 RR	51 ± 2	61	46	52	40	49	58
Average (bu/a)		**56**	**56**	**48**	**55**	**54**	**63**	**63**
L.S.D.$_{.05}$ (bu/a)		**4**	**12**	**7**	**10**	**11**	**15**	**10**
C.V. (%)		**11.6**	**13.0**	**10.5**	**10.4**	**12.2**	**13.8**	**9.1**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 41. Mean yields † and agronomic characteristics of eight Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in six environments in Tennessee during 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=6)	Moisture § (n=6)	Lodging (n=6)	Height (n=6)	Maturity (n=6)	Shattering (n=4)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDX (n=1)
		bu/a	%	Score	in.	DAP	Score		%	%	%	0 - 9	index
USG	Allen	60 ± 2	14.3	2.1	42	157	1.0	2.3	40.3	21.4	80.0	3.0	26.9
Asgrow	AG5606 (RR)	59 ± 2	13.8	2.3	40	153	1.0	2.2	38.8	21.8	76.7	3.0	25.9
Progeny	5706 RR	58 ± 2	14.1	2.1	42	157	1.1	2.2	40.3	22.0	76.7	3.7	33.9
Progeny	5622 RR	55 ± 2	14.1	1.6	39	154	1.0	2.3	39.3	22.0	91.7	3.3	34.3
Progeny	5650 RR	55 ± 2	14.4	2.8	40	157	1.0	2.3	37.8	22.6	78.3	2.3	20.4
USG	75Z98 (RR)	53 ± 2	14.1	2.4	37	155	1.0	2.4	41.3	20.8	91.7	4.3	45.4
Morsoy	RT 5688N (RR)	52 ± 2	14.1	2.5	37	156	1.0	2.5	41.2	21.0	98.3	5.7	62.2
Croplan	RC 5663 RR	51 ± 2	13.6	3.4	36	150	1.0	2.3	40.1	21.6	55.0	2.7	19.3
	Average	**56**	**14.1**	**2.4**	**39**	**155**	**1.0**	**2.3**	**39.9**	**21.7**	**81.0**	**3.5**	**33.5**

† All yields are adjusted to 13% moisture. § Average moisture at harvest Maturity = days after planting (DAP). Protein & Oil on dry weight basis.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 9/3/09.

Table 42. Mean yields † and SDS Ratings of eight Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated at Knoxville, Tennessee during 2009.

			SDS		
Brand	**Variety ‡**	**Avg. Yield Knoxville**	**DI (n=1)**	**DS (n=1)**	**DX (n=1)**
			%	0 - 9	index
Croplan	RC 5663 RR	61	55.0	2.7	19.3
Progeny	5650 RR	58	78.3	2.3	20.4
Asgrow	AG5606 (RR)	65	76.7	3.0	25.9
USG	Allen (RR)	65	80.0	3.0	26.9
Progeny	5706 RR	60	76.7	3.7	33.9
Progeny	5622 RR	48	91.7	3.3	34.3
USG	75Z98 (RR)	47	91.7	4.3	45.4
Morsoy	RT 5688N (RR)	38	98.3	5.7	62.2
Average (bu/a)		**56**	**81.0**	**3.5**	**33.5**
L.S.D.$_{.05}$ (bu/a)		**12**			
C.V. (%)		**13.0**			

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 9/3/09.

Varieties with a higher DX value are more susceptible to SDS.

Table 43. Mean yields † of seven Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2008 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Knoxville	Spring Hill		Springfield	Milan	
				Irr.	Non-Irr.		Irr.	Non-Irr.
		----------bu/a----------						
Asgrow	AG5606 (RR)	59 ± 1	75	51	50	60	63	55
USG	Allen	57 ± 1	69	44	49	59	65	55
Progeny	5706 RR	57 ± 1	72	46	47	60	62	54
Morsoy	RT 5688N (RR)	55 ± 1	54	53	57	57	61	51
USG	75Z98 (RR)	55 ± 1	63	48	53	53	60	52
Progeny	5650 RR	54 ± 1	66	46	47	55	60	51
Progeny	5622 RR	54 ± 1	54	48	48	58	61	52
Average (bu/a)		**56**	**65**	**48**	**50**	**57**	**62**	**53**
L.S.D.$_{.05}$ (bu/a)		**4**	**10**	**9**	**7**	**8**	**9**	**7**
C.V. (%)		**10.8**	**10.5**	**13.9**	**9.4**	**9.8**	**10.3**	**9.5**

† All yields are adjusted to 13% moisture.

‡ If a RR appears inside parentheses (RR), then it is not part of the variety name.

Table 44. Mean yields † and agronomic characteristics of seven Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in six environments (n=12) in Tennessee for two years, 2008 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=12)	Moisture § (n=12)	Lodging (n=12)	Height (n=12)	Maturity (n=12)	Shattering (n=8)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)
		bu/a	%	Score	in.	DAP	----------Score------		%	%
Asgrow	AG5606 (RR)	59 ± 1	13.1	2.2	39	153	1.2	2.0	39.0	21.4
USG	Allen	57 ± 1	13.4	1.9	40	155	1.1	2.2	40.6	21.0
Progeny	5706 RR	57 ± 1	13.4	1.9	40	157	1.2	2.1	40.5	21.4
Morsoy	RT 5688N (RR)	55 ± 1	13.4	2.3	36	154	1.1	2.1	40.9	20.8
USG	75Z98 (RR)	55 ± 1	13.2	2.2	36	155	1.0	2.1	41.0	20.6
Progeny	5650 RR	54 ± 1	13.5	2.5	39	156	1.1	2.1	37.7	22.3
Progeny	5622 RR	54 ± 1	13.2	1.6	38	154	1.1	2.3	39.4	21.7
	Average	**56**	**13.3**	**2.1**	**38**	**155**	**1.1**	**2.1**	**39.9**	**21.3**

† All yields are adjusted to 13% moisture. ‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 45. Mean yields † of three Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in six environments (n=18) in Tennessee for three years, 2007 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=18)	Knoxville	Spring Hill		Springfield	Milan	
				Irr.	Non-Irr.		Irr.	Non-Irr.
		bu/a						
USG	Allen	51 ± 1	61	45	45	43	61	51
Progeny	5706 RR	51 ± 1	64	44	43	44	62	48
Progeny	5622 RR	47 ± 1	49	46	41	42	56	47
Average (bu/a)		**50**	**58**	**45**	**43**	**43**	**60**	**49**
L.S.D.$_{.05}$ (bu/a)		**3**	**9**	**11**	**7**	**7**	**9**	**7**
C.V. (%)		**11.9**	**10.5**	**16.5**	**10.7**	**10.9**	**11.2**	**9.7**

† All yields are adjusted to 13% moisture.

‡ If a RR appears inside parentheses (RR), then it is not part of the variety name.

Table 46. Mean yields † and agronomic characteristics of three Late Maturity Group V (5.6 - 5.9) Roundup Ready soybean varieties evaluated in six environments (n=18) in Tennessee for three years, 2007 - 2009.

Brand	Variety ‡	Avg. Yield ± Std Err. (n=18)	Moisture § (n=18)	Lodging (n=14)	Height (n=18)	Maturity (n=17)	Shattering (n=12)	Leaf Retention (n=1)	Seed Quality (n=4)	Protein (n=4)	Oil (n=4)
		bu/a	%	Score	in.	DAP	Score			%	%
USG	Allen	51 ± 1	13.3	1.9	38	159	1.2	1.0	2.0	41.5	20.4
Progeny	5706 RR	51 ± 1	13.3	2.0	38	160	1.2	1.0	1.8	41.9	20.8
Progeny	5622 RR	47 ± 1	13.1	1.7	37	158	1.2	1.2	2.0	40.7	21.1
	Average	**50**	**13.2**	**1.9**	**38**	**159**	**1.2**	**1.1**	**1.9**	**41.4**	**20.8**

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

§ Average moisture at harvest

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Leaf Retention (at harvest) = 1 to 5 scale; where 1 = < 5% of plants holding leaves at harvest maturity; 5=95+% of plants holding leaves and green stems at harvest maturity.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 47. Mean yields † of 36 Maturity Group IV and V Conventional soybean varieties and Roundup Ready checks evaluated in five environments in Tennessee during 2009.

Brand	Variety	Avg. Yield ± Std Err. (n=5)	Knoxville	Spring Hill	Springfield	Milan	
				Non-Irr.		Irr.	Non-Irr.
		---bu/a---					
Maturity Group V							
MO	Jake	68 ± 2	81	57	56	75	72
USDA-TN	JTN-5203	67 ± 2	77	53	59	72	74
KS	KS 5004N	65 ± 2	66	57	58	73	72
VA	Glenn	65 ± 2	59	53	58	76	77
NC Exp	NCC04-1555	64 ± 2	66	55	57	75	69
AR	Osage	64 ± 2	55	62	58	74	72
AR	Ozark	61 ± 2	65	40	55	75	72
MO Exp	S05-11482	60 ± 2	76	51	50	60	62
USDA-TN	JTN-5503	60 ± 2	67	55	48	62	66
USG	5002T	59 ± 2	61	49	53	63	71
USG	Allen (RR) (RR5 Check)	59 ± 2	58	44	51	73	70
AR	R04-357	58 ± 2	55	44	56	69	65
USDA - NC Exp	N02-417	58 ± 2	50	48	56	65	69
NC Exp	NCC05-1168	57 ± 2	60	47	48	67	62
USDA-TN	JTN-5303	57 ± 2	62	56	47	62	56
USDA-TN	JTN-5308	56 ± 2	61	65	45	52	60
NC Exp	NCC05-1261	56 ± 2	57	52	54	58	60
USG	5601T	55 ± 2	52	32	55	70	68
USDA-TN	JTN-5107	55 ± 2	57	49	52	56	59
NC Exp	NCC05-1336	54 ± 2	41	45	52	67	66
MO Exp	Stoddard	54 ± 2	71	40	46	54	59
TN Exp	TN03-217	50 ± 2	39	53	43	58	57
USDA-TN	JTN-5108	49 ± 2	54	49	46	43	56
MO Exp	S05-11268	49 ± 2	64	34	47	50	52
Maturity Group IV							
TN Exp	TN04-124	65 ± 2	67	49	56	77	78
Hornbeck	HBK R 4924 (RR4 Check)	63 ± 2	70	53	52	72	69
Schillinger Seed	477 TCS	61 ± 2	66	62	44	63	71
AR	R00-1194F	61 ± 2	63	53	51	69	68
Progeny	P 4910	60 ± 2	64	60	54	59	62
Steyer	4801 L (LL)	59 ± 2	55	60	48	67	65
KS	K03-3825	57 ± 2	57	51	47	71	59
AR	UA 4805	54 ± 2	42	41	51	66	70
USG	74G99 (LL)	54 ± 2	35	46	60	70	57
Morsoy	RT 4485N (RR4 Check)	53 ± 2	54	51	41	61	59
Steyer	4201 L (LL)	51 ± 2	49	57	38	63	48
USDA-TN	JTN-4508	51 ± 2	43	57	38	64	52
Average (bu/a)		**58**	**59**	**51**	**51**	**65**	**65**
L.S.D.$_{.05}$ (bu/a)		**6**	**13**	**19**	**8**	**10**	**10**
C.V. (%)		**13.3**	**13.6**	**22.6**	**9.8**	**9.6**	**9.3**

† All yields are adjusted to 13% moisture.

Table 48. Mean yields † and agronomic characteristics of 36 Maturity Group IV and V Conventional soybean varieties and Roundup Ready checks evaluated in five environments in Tennessee during 2009.

Brand	Variety	Avg. Yield ± Std Err. (n=5)	Moisture ‡ (n=5)	Lodging (n=5)	Height (n=5)	Maturity (n=5)	Shattering (n=3)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	-------Score-------		%	%	%	0 - 9	index
Maturity Group V													
MO	Jake	68 ± 2	13.8	2.3	37	148	1.0	2.5	40.1	21.4	0.0	0.0	0.0
USDA-TN	JTN-5203	67 ± 2	13.9	1.5	34	146	1.0	2.5	40.6	21.1	6.7	1.0	0.7
KS	KS 5004N	65 ± 2	13.6	1.8	35	141	1.0	2.5	40.4	22.6	38.3	1.7	8.1
VA	Glenn	65 ± 2	13.6	2.0	31	146	1.0	3.2	41.1	21.4	93.3	2.3	24.4
NC Exp	NCC04-1555	64 ± 2	14.3	2.0	33	153	1.0	2.3	38.8	22.1	75.0	2.0	16.7
AR	Osage	64 ± 2	13.7	1.8	33	147	1.0	2.2	43.0	20.3	83.3	2.7	25.9
AR	Ozark	61 ± 2	14.8	2.2	36	146	1.0	2.0	39.8	21.3	83.3	2.0	18.5
MO Exp	S05-11482	60 ± 2	14.0	3.2	33	147	1.0	2.5	39.3	21.4	3.7	0.7	0.4
USDA-TN	JTN-5503	60 ± 2	13.8	2.7	35	148	1.0	2.5	39.6	21.0	23.3	1.0	4.4
USG	5002T	59 ± 2	13.9	2.5	31	143	1.0	3.2	40.4	22.8	66.7	1.7	14.4
USG	Allen (RR) (RR5 Check)	59 ± 2	15.3	2.0	40	152	1.0	2.5	40.1	21.5	93.3	3.7	39.3
AR	R04-357	58 ± 2	14.1	3.1	35	149	1.0	2.3	40.4	21.0	86.7	3.7	36.3
USDA - NC Exp	N02-417	58 ± 2	14.1	1.9	34	145	1.0	2.2	37.7	23.1	98.3	3.0	33.0
NC Exp	NCC05-1168	57 ± 2	13.7	2.4	33	143	1.3	3.8	40.4	21.2	50.0	2.3	14.4
USDA-TN	JTN-5303	57 ± 2	13.7	3.0	33	148	1.1	2.7	39.8	21.3	30.0	1.3	6.7
USDA-TN	JTN-5308	56 ± 2	14.5	3.8	37	149	1.0	2.5	39.3	21.2	56.7	2.0	12.6
NC Exp	NCC05-1261	56 ± 2	14.0	2.1	31	140	1.1	3.5	40.6	20.8	45.0	2.3	13.0
USG	5601T	55 ± 2	13.7	2.1	36	147	1.0	3.0	41.5	21.7	100.0	3.3	37.0
USDA-TN	JTN-5107	55 ± 2	14.0	2.3	34	148	1.0	2.8	40.5	21.3	91.7	3.0	30.9
NC Exp	NCC05-1336	54 ± 2	13.6	2.2	35	143	1.0	2.8	40.1	21.3	96.7	4.0	43.3
MO Exp	Stoddard	54 ± 2	13.7	3.4	30	142	1.0	2.8	40.4	21.5	8.7	1.0	1.0
TN Exp	TN03-217	50 ± 2	13.4	1.5	29	146	1.0	2.3	41.9	20.1	90.0	2.7	26.7
USDA-TN	JTN-5108	49 ± 2	14.0	3.4	34	151	1.0	2.2	41.9	20.3	73.3	2.3	19.6
MO Exp	S05-11268	49 ± 2	13.9	3.4	32	143	1.0	2.7	40.5	21.4	8.7	1.0	1.0

Table 48 (continued)

Brand	Variety	Avg. Yield ± Std Err. (n=5)	Moisture ‡ (n=5)	Lodging (n=5)	Height (n=5)	Maturity (n=5)	Shattering (n=3)	Seed Quality (n=1)	Protein (n=1)	Oil (n=1)	SDS DI (n=1)	SDS DS (n=1)	SDS DX (n=1)
		bu/a	%	Score	in.	DAP	-------Score-------		%	%	%	0 - 9	index
Maturity Group IV													
TN Exp	TN04-124	65 ± 2	13.7	1.9	37	144	1.0	2.7	40.8	22.1	86.7	2.7	25.9
Hornbeck	HBK R 4924 (RR4 Check)	63 ± 2	13.9	2.7	45	137	1.2	3.3	39.8	22.6	32.3	1.3	7.1
Schillinger Seed	477 TCS	61 ± 2	13.5	2.0	36	134	1.2	4.0	41.8	22.1	8.7	1.0	1.0
AR	R00-1194F	61 ± 2	13.5	1.5	37	136	1.3	3.8	39.3	22.6	70.0	1.7	12.2
Progeny	P 4910	60 ± 2	13.6	2.7	45	137	1.3	3.8	40.1	22.9	66.7	2.3	18.3
Steyer	4801 L (LL)	59 ± 2	13.6	1.2	46	137	1.3	4.3	42.4	23.6	96.7	2.7	28.9
KS	K03-3825	57 ± 2	13.6	1.3	34	137	1.2	4.2	43.2	21.6	51.7	2.0	14.3
AR	UA 4805	54 ± 2	13.9	2.2	33	138	1.0	3.3	41.9	21.0	90.0	3.3	34.4
USG	74G99 (LL)	54 ± 2	14.0	1.4	43	140	1.2	3.3	40.3	22.6	98.3	5.0	55.0
Morsoy	RT 4485N (RR4 Check)	53 ± 2	13.2	2.0	42	133	1.3	3.7	40.0	22.7	58.3	2.7	18.9
Steyer	4201 L (LL)	51 ± 2	13.3	1.7	40	133	1.3	4.3	40.5	23.0	70.0	6.3	52.2
USDA-TN	JTN-4508	51 ± 2	13.7	3.4	43	137	1.0	4.0	41.7	21.6	81.7	3.7	33.9
	Average	**58**	**13.9**	**2.3**	**36**	**143**	**1.1**	**3.0**	**40.6**	**21.7**	**61.5**	**2.4**	**20.3**

† All yields are adjusted to 13% moisture.

‡ Average moisture at harvest.

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 9/3/09.

Table 49. Mean yields † and SDS Ratings of 36 Maturity Group IV and V Conventional soybean varieties and Roundup Ready checks evaluated at Knoxville, Tennessee during 2009.

			SDS		
Brand	Variety	Avg. Yield Knoxville	DI (n=1)	DS (n=1)	DX (n=1)
			%	0 - 9	index
Maturity Group V					
MO	Jake	81	0.0	0.0	0.0
MO Exp	S05-11482	76	3.7	0.7	0.4
USDA-TN	JTN-5203	77	6.7	1.0	0.7
MO Exp	Stoddard	71	8.7	1.0	1.0
MO Exp	S05-11268	64	8.7	1.0	1.0
USDA-TN	JTN-5503	67	23.3	1.0	4.4
USDA-TN	JTN-5303	62	30.0	1.3	6.7
KS	KS 5004N	66	38.3	1.7	8.1
USDA-TN	JTN-5308	61	56.7	2.0	12.6
NC Exp	NCC05-1261	57	45.0	2.3	13.0
NC Exp	NCC05-1168	60	50.0	2.3	14.4
USG	5002T	61	66.7	1.7	14.4
NC Exp	NCC04-1555	66	75.0	2.0	16.7
AR	Ozark	65	83.3	2.0	18.5
USDA-TN	JTN-5108	54	73.3	2.3	19.6
VA	Glenn	59	93.3	2.3	24.4
AR	Osage	55	83.3	2.7	25.9
TN Exp	TN03-217	39	90.0	2.7	26.7
USDA-TN	JTN-5107	57	91.7	3.0	30.9
USDA - NC Exp	N02-417	50	98.3	3.0	33.0
AR	R04-357	55	86.7	3.7	36.3
USG	5601T	52	100.0	3.3	37.0
USG	Allen (RR) (RR5 Check)	58	93.3	3.7	39.3
NC Exp	NCC05-1336	41	96.7	4.0	43.3
Maturity Group IV					
Schillinger Seed	477 TCS	66	8.7	1.0	1.0
Hornbeck	HBK R 4924 (RR4 Check)	70	32.3	1.3	7.1
AR	R00-1194F	63	70.0	1.7	12.2
KS	K03-3825	57	51.7	2.0	14.3
Progeny	P 4910	64	66.7	2.3	18.3
Morsoy	RT 4485N (RR4 Check)	54	58.3	2.7	18.9
TN Exp	TN04-124	67	86.7	2.7	25.9
Steyer	4801 L (LL)	55	96.7	2.7	28.9
USDA-TN	JTN-4508	43	81.7	3.7	33.9
AR	UA 4805	42	90.0	3.3	34.4
Steyer	4201 L (LL)	49	70.0	6.3	52.2
USG	74G99 (LL)	35	98.3	5.0	55.0
Average (bu/a)		**59**	**61.5**	**2.4**	**20.3**
L.S.D.$_{.05}$ (bu/a)		**13**			
C.V. (%)		**13.6**			

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size on 9/3/09.

Varieties with a higher DX value are more susceptible to SDS.

Table 50. Mean yields † of 17 Maturity Group IV and V Conventional soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2008 - 2009.

Brand	Variety	Avg. Yield ± Std Err. (n=10)	Knoxville	Spring Hill Non-Irr.	Springfield	Milan Irr.	Milan Non-Irr.
		----------	----------	bu/a ----------	----------	----------	----------
Maturity Group V							
NC Exp	NCC04-1555	56 ± 1	50	51	54	76	51
AR	Osage	56 ± 1	44	56	51	72	56
VA	Glenn	55 ± 1	45	46	54	74	55
MO	Jake	55 ± 1	56	47	50	69	52
USDA-TN	JTN-5203	54 ± 1	54	45	51	68	54
AR	Ozark	54 ± 1	47	44	51	72	55
KS	KS 5004N	54 ± 1	44	48	52	71	53
USG	5601T	52 ± 1	45	38	53	73	51
USG	5002T	51 ± 1	45	45	47	62	55
USDA - NC Exp	N02-417	50 ± 1	38	46	48	69	50
USDA-TN	JTN-5308	48 ± 1	48	50	43	52	45
MO Exp	Stoddard	47 ± 1	51	40	48	53	46
USDA-TN	JTN-5108	45 ± 1	49	41	45	46	43
TN Exp	TN03-217	43 ± 1	27	47	44	55	40
Maturity Group IV							
TN Exp	TN04-124	54 ± 1	48	44	50	71	56
AR	R00-1194F	50 ± 1	44	46	45	65	52
AR	UA 4805	46 ± 1	33	42	42	63	52
Average (bu/a)		**51**	**45**	**46**	**49**	**65**	**51**
L.S.D.$_{.05}$ (bu/a)		**4**	**9**	**14**	**9**	**8**	**7**
C.V. (%)		**13.4**	**14.1**	**20.7**	**13.4**	**9.1**	**9.6**

† All yields are adjusted to 13% moisture.

Table 51. Mean yields † and agronomic characteristics of 17 Maturity Group IV and V Conventional soybean varieties evaluated in five environments (n=10) in Tennessee for two years, 2008 - 2009.

Brand	Variety	Avg. Yield ± Std Err. (n=10)	Moisture ‡ (n=10)	Lodging (n=9)	Height (n=10)	Maturity (n=10)	Shattering (n=6)	Seed Quality (n=2)	Protein (n=2)	Oil (n=2)
		bu/a	%	Score	in.	DAP	-------Score-------		%	%
Maturity Group V										
NC Exp	NCC04-1555	56 ± 1	13.4	1.8	32	149	1.0	2.1	39.6	21.7
AR	Osage	56 ± 1	13.2	1.7	32	145	1.2	2.2	43.3	20.1
VA	Glenn	55 ± 1	13.1	1.9	30	144	1.2	2.6	41.1	21.5
MO	Jake	55 ± 1	13.5	1.9	34	145	1.2	2.3	41.0	21.3
USDA-TN	JTN-5203	54 ± 1	13.2	1.5	32	145	1.2	2.4	41.0	21.3
AR	Ozark	54 ± 1	14.0	2.0	34	144	1.2	1.9	40.4	21.1
KS	KS 5004N	54 ± 1	13.2	1.7	33	141	1.1	2.3	40.4	22.6
USG	5601T	52 ± 1	13.1	1.9	35	146	1.0	2.5	41.8	21.2
USG	5002T	51 ± 1	13.4	2.1	30	143	1.1	2.9	40.6	22.6
USDA - NC Exp	N02-417	50 ± 1	13.6	1.6	32	145	1.1	2.3	38.9	22.7
USDA-TN	JTN-5308	48 ± 1	13.5	3.3	36	146	1.1	2.2	40.4	20.8
MO Exp	Stoddard	47 ± 1	13.2	2.8	29	141	1.2	2.6	40.8	21.5
USDA-TN	JTN-5108	45 ± 1	13.0	3.0	33	147	1.2	2.2	42.4	19.9
TN Exp	TN03-217	43 ± 1	12.9	1.6	27	145	1.2	1.9	43.0	19.4
Maturity Group IV										
TN Exp	TN04-124	54 ± 1	12.8	1.6	35	142	1.2	2.3	41.3	21.9
AR	R00-1194F	50 ± 1	13.2	1.4	35	138	1.3	3.2	39.7	22.3
AR	UA 4805	46 ± 1	13.2	1.8	31	140	1.2	2.7	42.1	20.7
	Average	**51**	**13.3**	**2.0**	**32**	**144**	**1.1**	**2.4**	**41.0**	**21.3**

† All yields are adjusted to 13% moisture.

‡ Average moisture at harvest.

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 52. Mean yields † of seven Maturity Group IV and V Conventional soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2007 - 2009.

Brand	Variety	Avg. Yield ± Std Err. (n=12)	Knoxville	Springfield	Milan Irr.	Milan Non-Irr.
		----------bu/a----------				
Maturity Group V						
USG	5601T	51 ± 1	39	43	68	52
AR	Ozark	50 ± 1	42	40	67	52
VA	Glenn	50 ± 1	37	42	70	51
KS	KS 5004N	48 ± 1	36	42	65	48
USG	5002T	46 ± 1	39	37	58	51
Maturity Group IV						
TN Exp	TN04-124	50 ± 1	39	42	68	50
AR	UA 4805	42 ± 1	30	34	57	47
Average (bu/a)		**48**	**37**	**40**	**65**	**50**
L.S.D.$_{.05}$ (bu/a)		**4**	**9**	**9**	**8**	**7**
C.V. (%)		**11.5**	**14.5**	**14.3**	**8.9**	**9.5**

† All yields are adjusted to 13% moisture.

Table 53. Mean yields † and agronomic characteristics of seven Maturity Group IV and V Conventional soybean varieties evaluated in four environments (n=12) in Tennessee for three years, 2007 - 2009.

Brand	Variety	Avg. Yield ± Std Err. (n=12)	Moisture ‡ (n=12)	Lodging (n=9)	Height (n=12)	Maturity (n=12)	Shattering (n=6)	Leaf Retention (n=1)	Seed Quality (n=4)	Protein (n=4)	Oil (n=4)
		bu/a	%	Score	in.	DAP	----------Score----------			%	%
Maturity Group V											
USG	5601T	51 ± 1	13.8	1.9	35	145	1.1	1.6	2.3	42.2	20.9
AR	Ozark	50 ± 1	14.8	2.0	35	145	1.0	1.3	1.9	41.2	20.9
VA	Glenn	50 ± 1	13.7	2.1	31	143	1.1	1.5	2.3	42.0	21.1
KS	KS 5004N	48 ± 1	13.4	1.7	34	141	1.1	1.7	2.0	41.7	21.8
USG	5002T	46 ± 1	13.6	2.1	31	144	1.1	1.8	2.9	41.8	22.0
Maturity Group IV											
TN Exp	TN04-124	50 ± 1	13.0	1.7	35	142	1.1	1.7	2.1	42.3	21.4
AR	UA 4805	42 ± 1	13.5	1.9	31	140	1.1	1.8	2.3	42.7	20.3
	Average	**48**	**13.7**	**1.9**	**33**	**143**	**1.1**	**1.6**	**2.3**	**42.0**	**21.2**

† All yields are adjusted to 13% moisture. ‡ Average moisture at harvest. Maturity = days after planting (DAP).

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered. Protein & Oil on dry weight basis.

Leaf Retention (at harvest) = 1 to 5 scale; where 1 = < 5% of plants holding leaves at harvest maturity; 5=95+% of plants holding leaves and green stems at harvest maturity.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5 = 95+% of seed are diseased or have split seed coats.

Table 54. Yields † of 13 Maturity Group IV and V Conventional soybean varieties in seven County Standard Tests in Tennessee during 2009.

MS	Brand/Variety	Avg. Yield	Moisture‡	Dyer	Gibson	Hardin	Milan REC (1) Gibson	Milan REC (2) Gibson	Obion	Weakley
		bu/a	**%**	**6/20 §**	**6/23**	**6/17**	**5/19**	**5/22**	**7/1**	**6/25**
Maturity Group V										
AB	VA Glenn	62.8	12.9	70.1	56.0	57.4	69.0	75.2	54.1	57.7
ABC	MO Anand	59.0	13.0	64.5	55.7	60.7	61.7	70.6	47.8	52.1
ABC	MO Jake	58.2	12.9	65.4	51.2	59.9	65.2	64.9	47.8	53.2
BC	USG 5601T	57.8	12.8	63.0	50.3	58.6	69.8	62.9	50.3	49.7
CD	USG 5002T	56.2	12.5	62.0	52.7	55.7	69.4	58.3	43.1	52.5
CD	USG Allen (RR)	55.8	13.7	62.2	52.0	53.1	68.2	60.8	45.9	48.6
CD	AR Ozark	55.5	13.4	56.9	52.8	56.5	69.5	63.1	45.4	44.3
CD	AR Osage	55.4	13.1	59.2	47.8	60.1	77.0	53.0	50.3	40.6
CD	VA Hutcheson	55.2	13.1	56.7	53.3	56.5	67.7	61.8	48.0	42.4
D	MO Stoddard	52.3	12.6	58.5	38.3	55.6	67.6	50.0	41.6	54.9
	Average (bu/a)	**56.8**	**13.0**	**61.9**	**51.0**	**57.4**	**68.5**	**62.1**	**47.4**	**49.6**
Maturity Group IV										
A	Croplan RT4886S (RR/STS)	63.2	12.6	61.7	65.4	55.3	75.7	70.6	63.3	50.6
ABC	Stine 49LA02 (LL)	58.2	12.8	63.4	60.2	61.8	67.1	51.3	55.1	48.3
CD	Progeny 4910	54.1	12.7	60.0	50.3	55.3	65.3	46.0	58.2	43.3
	Average (bu/a)	**58.5**	**12.7**	**61.7**	**58.6**	**57.4**	**69.4**	**56.0**	**58.9**	**47.4**

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

§ Planting date.

Each variety was evaluated in a large strip-plot at each loction, thus each county test was considered as one replication of the test in calculating the average yield and in conducting the statistical analysis to determine significant differences (MS).

MS= Varieties with any MS letter in common are not statistically different at the 5% level of probability.

Milan REC = Research and Education Center at Milan

Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops, and the extension agents in the counties shown above.

Table 55. Overall average yields † and moistures ‡ of nine Maturity Group IV and V Conventional soybean varieties evaluated in County Standard Tests (n=7) and Research and Education Centers (n=5) in Tennessee in 2009.

		Averages of CST & REC Tests		County Standard Trials		Research and Education Center Trials	
Brand	**Variety**	**Avg. Yield**	**Moisture**	**Avg. Yield**	**Moisture**	**Avg. Yield**	**Moisture**
		bu/a	%	bu/a	%	bu/a	%
Maturity Group V							
VA	Glenn	64	13.3	63	12.9	65	13.6
MO	Jake	63	13.4	58	12.9	68	13.8
AR	Osage	60	13.4	55	13.1	64	13.7
AR	Ozark	58	14.1	56	13.4	61	14.8
USG	5002T	58	13.2	56	12.5	59	13.9
USG	Allen (RR) (RR5 Check)	57	14.5	56	13.7	59	15.3
USG	5601T	56	13.3	58	12.8	55	13.7
MO Exp	Stoddard	53	13.2	52	12.6	54	13.7
Maturity Group IV							
Progeny	P 4910	57	13.2	54	12.7	60	13.6
Average (bu/a)		**59**	**13.5**	**56**	**13.0**	**61**	**14.0**

† Yields have been adjusted to 13% moisture.

‡ Moisture at harvest.

Table 56. Yield comparisons of 10 soybean varieties between seed treated or untreated with a systemic insecticide, evaluated in five to seven environments in Tennessee during 2009.

			Spring Hill			Milan				Avg. Yield
Brand	**Variety ‡**	**Knoxville**	**Irr.**	**Non-Irr.**	**Springfield**	**Irr.**	**Non-Irr.**	**Ames**	**Avg. Yield†**	**Difference**
Maturity Group III (n=5)										
Asgrow	AG3803 (RR) Cruiser	75	---	56	48	68	50	---	59	**+2**
Asgrow	AG3803 (RR)	70	---	55	42	66	52	---	57	
Hornbeck	HBK R 3927 (RR) Cruiser	49	---	60	52	59	37	---	51	**-1**
Hornbeck	HBK R 3927 (RR)	52	---	55	49	62	42	---	52	
	L.S.D.$_{.05}$ (bu/a)	**13**	---	**8**	**8**	**9**	**8**	---	**4**	
	C.V. (%)	**11.2**	---	**9.4**	**10.5**	**7.6**	**10.1**	---	**9.9**	
Maturity Group IV Early (n=7)										
Dyna-Gro	36C44 (RR/STS) Cruiser	73	51	49	59	60	60	62	59	**+4**
Dyna-Gro	36C44 (RR/STS)	74	44	36	52	62	58	60	55	
Progeny	4508 RR (Cruiser)	72	51	52	57	56	42	55	55	**+1**
Progeny	4508 RR	74	47	47	54	54	44	54	54	
	L.S.D.$_{.05}$ (bu/a)	**7**	**6**	**10**	**5**	**9**	**9**	**10**	**3**	
	C.V. (%)	**5.9**	**9.4**	**13.5**	**5.7**	**10.0**	**10.2**	**12.8**	**9.5**	
Maturity Group IV Late (n=7)										
Asgrow	AG4903 (RR/STS) Cruiser	75	56	54	55	74	61	56	62	**+4**
Asgrow	AG4903 (RR/STS)	71	51	53	50	70	58	54	58	
USG	74F96 (RR) Cruiser	61	52	55	58	60	48	43	54	**0**
USG	74F96 (RR)	65	51	53	55	64	48	45	54	
	L.S.D.$_{.05}$ (bu/a)	**6**	**7**	**9**	**5**	**11**	**10**	**9**	**3**	
	C.V. (%)	**5.3**	**9.7**	**11.6**	**5.9**	**10.3**	**11.6**	**11.9**	**9.5**	

Table 57 (continued)

Maturity Group V Early (n=7)										
USG	7553nRS (Cruiser)	64	49	64	48	68	66	68	61	**+2**
USG	7553nRS	67	42	53	58	72	67	55	59	
Asgrow	AG5503 (RR) Cruiser	59	36	42	55	75	59	31	51	**+1**
Asgrow	AG5503 (RR)	58	29	40	56	77	55	37	50	
	L.S.D.$_{.05}$ (bu/a)	**14**	**7**	**10**	**11**	**12**	**11**	**14**	**4**	
	C.V. (%)	**15.3**	**11.3**	**12.1**	**12.6**	**10.9**	**12.1**	**16.9**	**13.0**	
Maturity Group V Late (n=6)										
USG	Allen (Cruiser)	56	53	58	59	73	70	---	61	**+1**
USG	Allen	65	46	58	57	66	66	---	60	
Progeny	5706 RR (Cruiser)	57	56	52	51	69	67	---	59	**+1**
Progeny	5706 RR	60	45	50	58	67	67	---	58	
	L.S.D.$_{.05}$ (bu/a)	**12**	**7**	**10**	**11**	**15**	**10**	---	**4**	
	C.V. (%)	**13.0**	**10.5**	**10.4**	**12.2**	**13.8**	**9.1**	---	**11.6**	
Average -- Treated Seed (bu/a)		**64**	**50**	**54**	**54**	**66**	**56**	**52**	**57**	**+1**
Average -- Untreated Seed (bu/a)		**66**	**44**	**50**	**53**	**66**	**56**	**51**	**56**	

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 57. Comparisons of overall mean yields and agronomic characteristics of 10 soybean varieties between seed treated or untreated with a systemic insecticide, evaluated in five to seven environments in Tennessee during 2009.

											SDS		
Brand	Variety	Avg. Yield	Moisture ‡	Lodging	Height	Maturity	Shattering	Seed Quality	Protein	Oil	DI (n=1)	DS (n=1)	DX (n=1)
Maturity Group III (n=5)		bu/a	%	Score	in.	DAP	----------Score--------		%	%	%	0 - 9	index
Asgrow	AG3803 (RR) Cruiser	59	16.8	1.8	37	123	1.0	2.2	39.9	22.2	1.7	0.7	0.4
Asgrow	AG3803 (RR)	57	16.6	1.8	35	122	1.0	1.8	39.7	22.6	5.0	1.3	1.1
Hornbeck	HBK R 3927 (RR) Cruiser	51	16.7	2.7	45	125	1.0	2.3	41.5	21.6	61.7	6.3	46.6
Hornbeck	HBK R 3927 (RR)	52	16.7	2.9	46	126	1.0	2.2	41.0	21.8	46.7	5.8	35.4
Maturity Group IV Early (n=7)													
Dyna-Gro	36C44 (RR/STS) Cruiser	59	14.6	1.3	33	126	1.0	2.7	39.2	22.8	46.7	1.7	10.0
Dyna-Gro	36C44 (RR/STS)	55	14.5	1.2	32	126	1.1	2.5	39.2	22.8	23.7	1.7	7.4
Progeny	4508 RR (Cruiser)	55	14.6	1.6	42	127	1.3	1.8	38.0	23.6	53.3	1.7	10.4
Progeny	4508 RR	54	14.5	1.5	40	127	1.0	2.0	38.1	23.6	65.0	2.2	18.1
Maturity Group IV Late (n=7)													
Asgrow	AG4903 (RR/STS) Cruiser	62	14.1	1.7	41	135	1.0	2.5	38.6	22.9	31.7	1.7	4.8
Asgrow	AG4903 (RR/STS)	58	14.0	1.8	41	133	1.1	2.8	38.3	23.1	56.7	1.7	10.4
USG	74F96 (RR) Cruiser	54	13.8	1.6	44	134	1.0	3.3	38.4	21.9	73.3	2.3	19.3
USG	74F96 (RR)	54	13.8	1.7	43	135	1.1	3.7	38.4	21.9	60.0	2.0	14.4
Maturity Group V Early (n=7)													
USG	7553nRS (Cruiser)	61	13.9	1.6	39	149	1.0	2.0	39.4	21.9	63.3	2.3	20.4
USG	7553nRS	59	13.9	1.5	37	149	1.0	2.0	39.1	21.9	85.0	2.3	22.2
Asgrow	AG5503 (RR) Cruiser	51	14.0	1.3	42	135	1.2	3.7	39.0	23.9	76.7	2.7	27.0
Asgrow	AG5503 (RR)	50	13.8	1.5	41	136	1.2	3.7	38.9	23.8	85.0	2.3	22.6
Maturity Group V Late (n=6)													
USG	Allen (Cruiser)	61	14.1	2.2	42	158	1.2	2.5	40.0	21.4	83.3	4.0	37.8
USG	Allen	60	14.3	2.1	42	157	1.0	2.3	40.3	21.4	80.0	3.0	26.9
Progeny	5706 RR (Cruiser)	59	14.2	2.5	43	158	1.0	1.8	40.2	22.1	55.0	3.7	25.7
Progeny	5706 RR	58	14.1	2.1	42	157	1.1	2.2	40.3	22.0	76.7	3.7	33.9

† All yields are adjusted to 13% moisture. Protein & Oil on dry weight basis. ‡ Average moisture at harvest. Maturity = days after planting (DAP).

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Leaf Retention (at harvest) = 1 to 5 scale; where 1 = < 5% of plants holding leaves at harvest maturity; 5=95+% of plants holding leaves and green stems at harvest maturity.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

DI = disease incidence = percentage of plants with symptoms

DS = disease severity = score of leaf chlorosis and necrosis; 0 = no symptoms; 9 = plant death before normal defoliation due to senescence.

DX = disease index = (DI x DS / 9); ratings were made at approximately R6 when green pods with seed have reached full size at Knoxville on 8/26/09 - 9/3/09.

Table 58. Yield comparisons of six soybean varieties between seed treated or untreated with a systemic insecticide, evaluated in 12 to 14 environments in Tennessee for two years (2008 - 2009).

			Spring Hill			Milan				Avg. Yield
Brand	**Variety ‡**	**Knoxville**	**Irr.**	**Non-Irr.**	**Springfield**	**Irr.**	**Non-Irr.**	**Ames**	**Avg. Yield†**	**Difference**
Maturity Group IV Early (n=14)										
Progeny	4508 RR (Cruiser)	71	49	41	53	59	42	53	52	**+1**
Progeny	4508 RR	73	44	38	51	58	43	50	51	
	L.S.D.$_{.05}$ (bu/a)	**7**	**7**	**7**	**5**	**7**	**6**	**8**	**3**	
	C.V. (%)	**6.4**	**11.4**	**14.4**	**6.6**	**8.1**	**9.1**	**10.9**	**9.3**	
Maturity Group IV Late (n=14)										
Asgrow	AG4903 (RR/STS) Cruiser	76	59	49	57	70	53	51	59	**+2**
Asgrow	AG4903 (RR/STS)	72	56	46	55	66	50	50	57	
USG	74F96 (RR) Cruiser	62	55	49	59	62	44	44	53	**0**
USG	74F96 (RR)	64	54	46	58	60	43	45	53	
	L.S.D.$_{.05}$ (bu/a)	**7**	**7**	**7**	**6**	**8**	**7**	**8**	**3**	
	C.V. (%)	**7.1**	**9.9**	**11.6**	**7.4**	**9.4**	**10.2**	**11.8**	**9.5**	
Maturity Group V Early (n=14)										
USG	7553nRS (Cruiser)	48	52	55	56	66	54	59	56	**+2**
USG	7553nRS	47	44	47	66	68	54	53	54	
	L.S.D.$_{.05}$ (bu/a)	**9**	**8**	**8**	**9**	**8**	**8**	**10**	**3**	
	C.V. (%)	**16.4**	**12.9**	**11.7**	**9.9**	**9.2**	**11.2**	**12.8**	**11.8**	
Maturity Group V Late (n=12)										
USG	Allen (Cruiser)	60	53	51	60	68	57	---	58	**+1**
USG	Allen	69	44	49	59	65	55	---	57	
Progeny	5706 RR (Cruiser)	73	52	47	53	64	54	---	57	**0**
Progeny	5706 RR	72	46	47	60	62	54	---	57	
	L.S.D.$_{.05}$ (bu/a)	**10**	**9**	**7**	**8**	**9**	**7**	**---**	**4**	
	C.V. (%)	**10.5**	**13.9**	**9.4**	**9.8**	**10.3**	**9.5**	**---**	**10.8**	
Average -- Treated Seed (bu/a)		**65**	**53**	**49**	**56**	**65**	**51**	**52**	**56**	**+1**
Average -- Untreated Seed (bu/a)		**66**	**48**	**45**	**58**	**63**	**50**	**50**	**55**	

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 59. Comparisons of overall mean yields and agronomic characteristics of six soybean varieties between seed treated or untreated with a systemic insecticide, evaluated in 12 to 14 environments in Tennessee for two years (2008 - 2009).

Brand	Variety	Avg. Yield	Moisture ‡	Lodging	Height	Maturity	Shattering	Seed Quality	Protein	Oil
		bu/a	%	Score	in.	DAP	----------Score---------		%	%
Maturity Group IV Early (n=14)										
Progeny	4508 RR (Cruiser)	52	13.5	1.6	39	132	1.3	1.8	37.2	24.0
Progeny	4508 RR	51	13.5	1.6	37	132	1.2	1.8	37.0	24.0
Maturity Group IV Late (n=14)										
Asgrow	AG4903 (RR/STS) Cruiser	59	13.3	1.7	39	139	1.0	2.3	38.4	23.0
Asgrow	AG4903 (RR/STS)	57	13.3	1.7	38	139	1.2	2.5	38.5	22.8
USG	74F96 (RR) Cruiser	53	13.5	1.6	41	139	1.1	2.7	38.1	22.2
USG	74F96 (RR)	53	13.4	1.7	40	138	1.1	2.8	38.1	22.1
Maturity Group V Early (n=14)										
USG	7553nRS (Cruiser)	56	13.1	1.6	38	148	1.0	2.1	40.0	21.6
USG	7553nRS	54	13.1	1.5	36	148	1.0	2.0	40.3	21.7
Maturity Group V Late (n=12)										
USG	Allen (Cruiser)	58	13.2	2.0	40	155	1	2.3	40.1	21.3
USG	Allen	57	13.4	1.9	40	155	1	2.2	40.6	21.0
Progeny	5706 RR (Cruiser)	57	13.3	2.2	41	157	1.2	1.8	40.5	21.5
Progeny	5706 RR	57	13.4	1.9	40	157	1.2	2.1	40.5	21.4

† All yields are adjusted to 13% moisture.

‡ Average moisture at harvest.

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Leaf Retention (at harvest) = 1 to 5 scale; where 1 = < 5% of plants holding leaves at harvest maturity; 5=95+% of plants holding leaves and green stems at harvest maturity.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 60. Yield comparisons of four soybean varieties between seed treated or untreated with a systemic insecticide, evaluated in 15 to 18 environments in Tennessee for three years (2007 - 2009).

			Spring Hill			Milan				Avg. Yield
Brand	**Variety ‡**	**Knoxville**	**Irr.**	**Non-Irr.**	**Springfield**	**Irr.**	**Non-Irr.**	**Ames**	**Avg. Yield†**	**Difference**
Maturity Group IV Late (n=18)										
Asgrow	AG4903 (RR/STS) Cruiser	63	---	44	45	73	42	45	52	**+3**
Asgrow	AG4903 (RR/STS)	60	---	40	44	69	39	43	49	
	L.S.D.$_{.05}$ (bu/a)	**7**	---	**7**	**5**	**9**	**6**	**7**	**3**	
	C.V. (%)	**7.6**	---	**13.1**	**8.4**	**9.7**	**11.9**	**12.6**	**10.4**	
Maturity Group V Early (n=15)										
USG	7553nRS (Cruiser)	46	---	---	42	66	49	53	51	**0**
USG	7553nRS	44	---	---	49	65	50	47	51	
	L.S.D.$_{.05}$ (bu/a)	**9**	---	---	**7**	**9**	**7**	**8**	**4**	
	C.V. (%)	**15.4**	---	---	**11.6**	**11.3**	**11.2**	**13.1**	**12.4**	
Maturity Group V Late (n=18)										
USG	Allen (Cruiser)	56	52	48	43	66	52	---	53	**+2**
USG	Allen	61	45	45	43	61	51	---	51	
Progeny	5706 RR (Cruiser)	65	50	44	40	61	49	---	52	**+1**
Progeny	5706 RR	64	44	43	44	62	48	---	51	
	L.S.D.$_{.05}$ (bu/a)	**9**	**11**	**7**	**7**	**9**	**7**	---	**3**	
	C.V. (%)	**10.5**	**16.5**	**10.7**	**10.9**	**11.2**	**9.7**	---	**11.9**	
Average -- Treated Seed (bu/a)		**58**	**51**	**45**	**43**	**66**	**48**	**49**	**52**	**+1**
Average -- Untreated Seed (bu/a)		**58**	**44**	**42**	**45**	**64**	**47**	**45**	**51**	

† All yields are adjusted to 13% moisture.

‡ If a trait appears inside parentheses i.e. (RR), then it is not part of the variety name.

Table 61. Comparisons of overall mean yields and agronomic characteristics of four soybean varieties between seed treated or untreated with a systemic insecticide, evaluated in 15 to 18 environments in Tennessee for three years (2007 - 2009).

Brand	Variety	Avg. Yield	Moisture ‡	Lodging	Height	Maturity	Shattering	Leaf Retention	Seed Quality	Protein	Oil
		bu/a	%	Score	in.	DAP	----------Score----------			%	%
Maturity Group IV Late (n=18)											
Asgrow	AG4903 (RR/STS) Cruiser	52	13.3	1.7	38	145	1.0	2.6	2.4	40.2	21.9
Asgrow	AG4903 (RR/STS)	49	13.4	1.8	37	144	1.1	2.0	2.4	40.1	21.9
Maturity Group V Early (n=15)											
USG	7553nRS (Cruiser)	51	13.5	1.7	38	149	1.0	1.0	2.0	41.4	21.0
USG	7553nRS	51	13.4	1.7	37	148	1.0	1.1	2.1	41.6	21.0
Maturity Group V Late (n=18)											
USG	Allen (Cruiser)	53	13.1	2.0	39	159	1.1	1.0	2.1	41.2	20.6
USG	Allen	51	13.3	1.9	38	159	1.2	1.0	2.0	41.5	20.4
Progeny	5706 RR (Cruiser)	52	13.2	2.2	39	160	1.2	1.0	1.9	41.9	20.8
Progeny	5706 RR	51	13.3	2.0	38	160	1.2	1.0	1.8	41.9	20.8

† All yields are adjusted to 13% moisture.

‡ Average moisture at harvest.

Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

Maturity = days after planting (DAP).

Shattering = 1 to 5 scale; where 1 = no shattering; 5 = 90+% of pods shattered.

Leaf Retention (at harvest) = 1 to 5 scale; where 1 = < 5% of plants holding leaves at harvest maturity; 5=95+% of plants holding leaves and green stems at harvest maturity.

Seed Quality = 1 to 5 scale; where 1 = < 5% of seeds showing disease or split seed coats; 5=95+% of seed are diseased or have split seed coats.

Protein & Oil on dry weight basis.

Table 62. Characteristics of soybean varieties evaluated in Tennessee during 2009, as provided by the seed company.

Brand	Variety	2008 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color
AR	UA 4805	CV4	4.8	---	---	R	R	R	P	G
AR	R00-1194F	CV4	4.9	---	---	---	---	---	W	G
AR	Ozark	CV5	5.2	---	3	R	R	R	P	G
AR	Osage	CV5	5.6	---	---	R	R	R	P	G
AR	R04-357	CV5	5.6	---	---	---	---	---	P	G
Armor	42-M1 (RR)	R4E	4.2	RR	R3, MR14	R	MR	R	P	T
Armor	ARX 0431 (RR)	R4E	4.3	RR	---	R	MR	M	P	T
Armor	ARX 0432 (RR)	R4E	4.3	RR	---	R	MR	M	P	T
Armor	44-K6 (RR/STS)	R4E	4.4	RR/STS	R3, MR14	R	M	R	P	LT
Armor	47-F8 (RR/STS)	R4L	4.7	RR/STS	R 3, MR 14	R	MR	MR	P	T
Armor	ARX 0471 (RR/STS)	R4L	4.7	RR/STS	---	MR	MR	---	P	T
Armor	ARX 0472 (RR/STS)	R4L	4.7	RR/STS	---	MR	MR	---	P	T
Armor	ARX 0473 (RR)	R4L	4.7	RR	R 3, MR 14	R	MR	M	P	T
Armor	ARX 0474 (RR)	R4L	4.7	RR	R 3, MR 14	R	MR	M	P	T
Armor	48-J3 (RR)	R4L	4.8	RR	R3	R	MR	MR	P	T
Armor	53-Z5 (RR/STS)	R5E	5.3	RR/STS	R3,MR14	R	MR	MS	W	G
Armor	55-A5 (RR)	R5E	5.5	RR	MR 3	R	MR	MR	W	B
Armor	ARX 938 (RR/STS)	RR3	3.8	RR/STS	R3, MR14	---	M	---	W	G
Asgrow	AG4303 (RR)	R4E	4.3	RR	MR	MR	---	---	P	LT
Asgrow	AG4303 (FILL)	R4E	4.3	RR	MR	MR	---	---	P	LT
Asgrow	AG4005 (RR)	R4E	4.5	RR	MR 3	MR	M	---	W	T
Asgrow	AG4606 (RR/STS)	R4L	4.6	RR/STS	R3	M	M	MS	W	T
Asgrow	AG4703 (RR)	R4L	4.7	RR	MR 3	MR	M	MS	P	LT
Asgrow	DK4866 (RR/STS)	R4L	4.8	RR/STS	MR3	MS	MR	MS	P	LT
Asgrow	AG4903 (RR/STS)	R4L	4.9	RR/STS	S	MS	MR	M	P	LT
Asgrow	AG4903 (RR/STS) Cruiser	R4L	4.9	RR/STS	S	MS	MR	M	P	LT
Asgrow	AG4907 (RR)	R4L	4.9	RR	R3	MR	MS	---	P	LT
Asgrow	DP 5335 RR/S	R5E	5.1	RR/STS	S	R	M	MS	W	T
Asgrow	AG5503 (RR) Cruiser	R5E	5.5	RR	S	MR	---	---	W	T
Asgrow	AG5503 (RR)	R5E	5.5	RR	S	MR	---	---	W	T
Asgrow	AG5606 (RR)	R5L	5.6	RR	R 1,3	R	---	MR	W	T
Asgrow	AG5606 RR (FILL)	R5L	5.6	RR	R 1,3	R	---	MR	W	T
Asgrow	AG3803 (RR)	RR3	3.8	RR	R 3	MR	MS	---	P	G
Asgrow	AG3803 (RR) Cruiser	RR3	3.8	RR	R 3	MR	MS	---	P	G
Channel	C 4517R (STS) Brand	R4E	4.5	RR/STS	3, 14	R	R	R	W	T
Croplan	RC 4207 RR (STS)	R4E	4.2	RR/STS	R 3, MR 14	---	S	R	P	T
Croplan	RC 4417 RR	R4E	4.4	RR	R 3	---	R	---	P	T
Croplan	RC 4417 RR (FILL)	R4E	4.4	RR	R 3	---	R	---	P	T
Croplan	RC 4877 RR	R4L	4.8	RR	R3	R	R	R	P	T

Table 62 (continued)

Brand	Variety	2008 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color
Croplan	RT 4886 RR (STS)	R4L	4.8	RR/STS	---	R	R	R	P	G
Croplan	RC 5419 RR	R5E	5.4	RR	---	R	---	---	---	---
Croplan	RC 5663 RR	R5L	5.6	RR	R 3, 14	R	R	R	P	T
Croplan	RC 5663 RR (FILL)	R5L	5.6	RR	R 3, 14	R	R	R	P	T
Dairyland	4300 RR	R4E	4.3	RR	MR 3	---	---	---	P	T
Dairyland	4500 RR STS	R4E	4.5	RR/STS	3	---	---	---	P	T
Dairyland	8474 RR	R4L	4.7	RR	MR 3	---	---	---	W	T
Dairyland	8482 RR	R4L	4.8	RR	---	---	---	---	W	T
Dairyland	48-000 RR	R4L	4.8	RR	---	---	---	---	P	T
Dairyland	8509 RR	R5E	5.0	RR	MR 3	---	---	---	P	T
Dairyland	8512 RR	R5E	5.1	RR	MR 3,14	---	---	---	W	T
Delta Grow	4150 RR	R4E	4.1	RR	3,6	R	R	R	W	T
Delta Grow	4470 RR/STS	R4E	4.4	RR/STS	3	R	R	R	P	T
Delta Grow	4770 RR	R4L	4.7	RR	3, 6	R	R	R	W	T
Delta Grow	4780 RR	R4L	4.7	RR	3	R	R	R	P	T
Delta Grow	4870 RR	R4L	4.8	RR	3, 9, 14	MS	R	MR	W	T
Delta Grow	4970 RR	R4L	4.9	RR	3, 14	R	R	MR	P	T
Delta Grow	4975 RR	R4L	4.9	RR	S	MS	MS	MS	P	T
Delta Grow	5160 RR (STS)	R5E	5.1	RR/STS	3, 14	R	MR	MS	P	G
Delta Grow	5170 RR	R5E	5.1	RR	3, 6	MR	MR	MR	P	T
Delta Grow	5280 RR	R5E	5.2	RR	3, 14	MR	MS	S	P	T
Delta Grow	5300 RR (STS)	R5E	5.3	RR/STS	3,5,9,14	R	R	R	W	G
Delta Grow	5450 RR	R5E	5.4	RR	3,14	R	R	MR	W	G
Delta Grow	5555 RR	R5E	5.5	RR	3, 5, 14	MR	R	R	P	G
Delta King	DKX 0461 (RR)	R4L	4.6	RR	---	M	MR	M	P	T
Delta King	DKR 4744s (RR)	R4L	4.6	RR	---	M	MR	M	P	T
Dyna-Gro	V42N9 (RR/STS)	R4E	4.2	RR/STS	R 3, MR 14	R	MS	R	P	LT
Dyna-Gro	36C44 (RR/STS)	R4E	4.4	RR	R3, MR14	R	MR	R	P	T
Dyna-Gro	36C44 (RR/STS) Cruiser	R4E	4.4	RR	R3, MR14	R	MR	R	P	T
Dyna-Gro	37A44 (RR)	R4E	4.4	RR	R 3, MR 6,14	MR	MR	MR	P	T
Dyna-Gro	V45N9 (RR)	R4E	4.5	RR	---	---	---	---	---	---
Dyna-Gro	32R46 (RR/STS)	R4L	4.6	RR/STS	R3, MR 14	R	MR	MR	P	T
Dyna-Gro	32P48 (RR)	R4L	4.8	RR	R3, MR14	S	MR	MR	W	T
Dyna-Gro	V48N7 (RR/STS)	R4L	4.8	RR/STS	---	---	---	---	---	---
Dyna-Gro	35Z49 (RR)	R4L	4.9	RR	R 3,6 MR 14	R	R	MR	P	G
Dyna-Gro	37P49 (RR)	R4L	4.9	RR	MR 2	MS	MR	MR	P	T
Dyna-Gro	V49N6RR	R4L	4.9	RR	MR 3	R	MS	MR	P	LT
Dyna-Gro	33B52 (RR)	R5E	5.2	RR	MR 3,14	MR	MR	MR	W	G
Dyna-Gro	32A53 (RR)	R5E	5.3	RR	MR 3, 14	R	MR	MR	P	T
Dyna-Gro	33X55 (RR)	R5E	5.5	RR	R 3 MR 6,14	MR	MR	R	P	T

Table 62 (continued)

Brand	Variety	2008 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color
Dyna-Gro	35F55 (RR)	R5E	5.5	RR	R 1,3	MR	MR	MR	P	G
Hornbeck	HBK R 4924 (RR4 Check)	CV4	4.9	RR	R 3, MR 14	R	MR	MS	P	LT
Hornbeck	HBK R 4527 (RR)	R4E	4.5	RR	---	R	MR	---	W	G
Hornbeck	HBK R 4727 (RR)	R4L	4.7	RR	R 3	MR	R	---	P	T
Hornbeck	HBK R 4729 (RR)	R4L	4.7	RR	R 3	R	---	---	P	T
Hornbeck	HBK R 4924 (RR)	R4L	4.9	RR	R 3, MR 14	R	MR	MS	P	LT
Hornbeck	HBK R 5226 (RR)	R5E	5.2	RR	MR 3	R	MS	MR	P	T
Hornbeck	HBK R 5229 (RR)	R5E	5.2	RR	---	R	---	---	P	G
Hornbeck	HBK R 5525 (RR)	R5E	5.5	RR	R 3, MR 14	R	MR	MR	P	T
Hornbeck	HBK R 3927 (RR)	RR3	3.9	RR	---	R	S	---	P	G
Hornbeck	HBK R 3927 (RR) Cruiser	RR3	3.9	RR	---	R	S	---	P	G
KS	K03-3825	CV4	4.5	---	---	---	---	---	P	T
KS	KS 5004N	CV5	5.0	---	3	---	---	---	W	G
KS	KS 5507NRR	R5E	5.5	RR	2,3,4,14	---	---	---	P	G
KS	KS 3406RR	RR3	3.4	RR	---	---	---	---	P	T
MO	Jake	CV5	5.4	---	1,2,3,5,14	MR	MR	MR	P	T
MO Exp	Stoddard	CV5	5.1	---	1,2,3,5,14	MR	MR	MR	W	T
MO Exp	S05-11268	CV5	5.2	---	1, 2, 3, 5, 14	MR	MR	MS	W	T
MO Exp	S05-11482	CV5	5.2	---	1, 2, 3, 5, 14	MR	MR	R	W	T
MO Exp	S06-3929 (RR)	R4L	4.8	RR	3, 14	R	MR	MS	P	T
MO Exp	S06-3027 (RR)	R5E	5.2	RR	1, 2, 3, 5, 14	MR	MR	MS	W	T
MO Exp	S06-3095 (RR)	R5E	5.2	RR	1, 2, 3, 5, 14	MR	MR	MS	P	T
Morsoy	RT 4485N (RR4 Check)	CV4	4.4	RR	3, 14	R	R	R	P	T
Morsoy	RT 4485N (RR)	R4E	4.4	RR	3, 14	R	R	R	P	T
Morsoy	RT 4707N (RR)	R4L	4.7	RR	3	R	S	R	P	T
Morsoy	RTS 4706N (RR/STS)	R4L	4.7	RR/STS	3	R	R	R	S	G
Morsoy	RTS 4824 (RR/STS)	R4L	4.8	RR/STS	---	S	R	R	P	T
Morsoy	RT 4914N (RR)	R4L	4.9	RR	3	R	S	R	P	T
Morsoy	RT 4919N (RR)	R4L	4.9	RR	3	R	R	R	P	T
Morsoy	RTS 4955N (RR/STS)	R4L	4.9	RR/STS	3, 14	R	R	S	P	G
Morsoy	RT 5168N (RR)	R5E	5.1	RR	---	R	R	S	W	G
Morsoy	RT 5388N (RR)	R5E	5.3	RR	3, 14	R	r	R	P	G
Morsoy	RT 5688N (RR)	R5L	5.6	RR	1, 3,14	R	S	R	W	G
NC Exp	NCC05-1168	CV5	5.0	---	---	---	---	---	W	G
NC Exp	NCC05-1261	CV5	5.0	---	---	---	---	---	W	G
NC Exp	NCC05-1336	CV5	5.6	---	---	---	---	---	W	G
NC Exp	NCC04-1555	CV5	5.7	---	---	---	---	---	P	---
NK	S 46-U6 Brand (RR)	R4L	4.6	RR	R 3, 14	R	S	R	W	LT
NK	S 48-C9 Brand (RR)	R4L	4.8	RR	R 3	---	---	---	W	G
NK	S 49-H7 Brand (RR)	R4L	4.9	RR	R 3	R	MS	S	W	T

Table 62 (continued)

Brand	Variety	2008 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color
NK	S 52-F2 Brand (RR)	R5E	5.2	RR	R 3	R	MS	R	P	T
NK	S 39-A3 Brand (RR)	RR3	3.9	RR	R 3, 14	---	R	S	W	LT
Pioneer	94Y01 (RR)	R4E	4.0	RR	3	---	MR	MR	P	T
Pioneer	94Y20 (RR)	R4E	4.2	RR	3	---	MR	MR	W	T
Pioneer	94Y70 (RR)	R4L	4.7	RR	3	MR	MR	MR	P	T
Pioneer	94Y80 (RR)	R4L	4.8	RR	3	---	MR	R	P	T
Pioneer	94Y90 (RR)	R4L	4.9	RR	3	R	MR	---	P	T
Pioneer	95Y40 (RR)	R5E	5.4	RR	---	---	MR	S	W	T
Pioneer	93Y92 (RR)	RR3	3.9	RR	3	---	MR	R	P	T
Progeny	P 4910	CV4	4.9	---	R 3,MR 14	MR	M	MR	S	LT
Progeny	4206 RR	R4E	4.2	RR	R 3, MR 14	R	T	MR	W	T
Progeny	4508 RR	R4E	4.5	RR	MR 3	MS	MR	MS	P	T
Progeny	4508 RR (Cruiser)	R4E	4.5	RR	MR 3	MS	MR	MS	P	T
Progeny	4606 RR/STS	R4L	4.6	RR/STS	R 3, MR 14	R	MR	R	P	T
Progeny	4706 RR	R4L	4.7	RR	R 3, MR 14	T	T	MR	P	T
Progeny	4807 RR	R4L	4.8	RR	R 3	MR	MR	MR	P	T
Progeny	4906 RR	R4L	4.9	RR	---	S	MR	MR	P	T
Progeny	4908 RR	R4L	4.9	RR	MR 3	MR	MR	MR	P	T
Progeny	4949 RR	R4L	4.9	RR	S	MR	T	R	W	T
Progeny	5218 RR	R5E	5.2	RR	MR 3	R	MR	MR	P	T
Progeny	5309 RR (STS)	R5E	5.3	RR/STS	MR 3, 14	---	MR	---	W	T
Progeny	5319 RR	R5E	5.3	RR	R 1, 3	MR	MR	MR	P	G
Progeny	5409 RR	R5E	5.4	RR	MR 3	R	MR	MS	W	T
Progeny	5622 RR	R5L	5.6	RR	R 2,3,6,9 MR 14	T	T	T	W	G
Progeny	5650 RR	R5L	5.6	RR	R 3, MR 14	R	MR	R	W	G
Progeny	5706 RR	R5L	5.7	RR	R 3, MR 14	R	MR	MS	W	G
Progeny	5706 RR (Cruiser)	R5L	5.7	RR	R 3, MR 14	R	MR	MS	W	G
Progeny	3909 RR	RR3	3.9	RR	MR 3, 14	R	MR	MR	P	LT
Schillinger Seed	477 TCS	CV4	4.7	STS	R 3	R	R	R	P	G
Schillinger Seed	457 RC	R4E	4.5	RR	R 3	R	S	R	P	T
Schillinger Seed	458 RCS	R4E	4.5	RR/STS	R 3	R	R	R	P	T
Schillinger Seed	4880 RC	R4L	4.8	RR	R 3	R	S	R	P	T
Schillinger Seed	495 RC	R4L	4.9	RR	R 3	R	S	R	P	T
Schillinger Seed	499 RC	R4L	4.9	RR	R 3	R	R	R	W	T
Schillinger Seed	4990 RC	R4L	4.9	RR	R 3	R	R	R	P	T
Schillinger Seed	5440 R	R5E	5.4	RR	---	R	R	R	W	G
Schillinger Seed	557 RC	R5E	5.5	RR	R 3	R	R	R	P	G
Southern Cross	Lot (RR/STS)	R4E	4.1	RR/STS	---	R	R	R	P	T
Southern Cross	Jericho (RR)	R4E	4.2	RR	3, 14	R	R	R	P	T
Southern Cross	Caleb (RR/STS)	R4E	4.4	RR/STS	3,14	R	R	R	P	T

Table 62 (continued)

Brand	Variety	2008 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color
Southern Cross	Eli (RR/STS)	R4L	4.7	RR/STS	3,14	R	S	R	S	T
Southern Cross	Galilee (RR)	R4L	4.7	RR	3	R	R	R	P	T
Southern Cross	Rufus (RR/STS)	R4L	4.7	RR/STS	3,14	R	R	S	W	T
Southern Cross	Malachi (RR2Y)	RR3	3.8	RR2Y	3, 14	---	R	---	P	T
Steyer	4201 L (LL)	CV4	4.2	LL	R 3, MR 14	S	MR	MR	P	T
Steyer	4801 L (LL)	CV4	4.8	LL	R 3, MR 14	S	MR	MR	P	T
Steyer	4210 RR	R4E	4.2	RR	MR 3, 14	R	MR	MR	P	T
Steyer	4430 RR	R4E	4.4	RR	R 3, MR 14	S	MR	MR	P	T
Steyer	4710 RR	R4L	4.7	RR	R 3	S	MR	MR	P	T
Stine	4782-4 (RR/STS)	R4L	4.7	RR/STS	R 3,14	R	MR	R	S	T
Terral	TV 47R18 (RR)	R4L	4.7	RR	1, 5, 14	R	---	---	W	T
Terral	TV 49R17 (RR)	R4L	4.9	RR	R 3, 14	R	---	R	W	T
Terral	TV 49R19 (RR)	R4L	4.9	RR	1, 5, 14	R	---	---	W	T
Terral	TV 54R28 (RR)	R5E	5.4	RR	1	R	---	---	P	T
Terral	TV 55R15 (RR)	R5E	5.5	RR	1, 3	R	---	R	P	G
Terral-REV Brand	45R10 (RR)	R4E	4.5	RR	3	S	R	---	P	T
Terral-REV Brand	49R10 (RR)	R4L	4.9	RR	9	R	R	S	W	T
Terral-REV Brand	49R20 (RR)	R4L	4.9	RR	3	R	S	R	P	T
Terral-REV Brand	49R21 (RR)	R4L	4.9	RR	3	S	R	S	P	G
TN Exp	TN04-124	CV4	4.9	---	3	---	---	---	W	T
TN Exp	TN03-217	CV5	5.5	CONV	---	---	---	---	P	G
TN Exp	TN06-140RR	R5E	5.4	RR	---	---	---	---	W	G
Trisler Seed	Trisoy 4586RR (CN) STS	R4E	4.5	RR/STS	R 3, MR 14	R	MR	R	P	T
Trisler Seed	Trisoy 4788RR (CN) STS	R4L	4.7	RR/STS	MR 3	R	R	S	W	T
Trisler Seed	Trisoy 4984RR (CN)	R4L	4.9	RR	MR 3	S	MR	R	W	T
Trisler Seed	Trisoy 5484RR (CN)	R5E	5.4	RR	R 3, MR 14	R	R	R	W	G
USDA - NC Exp	N02-417	CV5	5.5	---	---	---	---	---	P	G
USDA-TN	JTN-4508	CV4	4.8	---	3, 14	R	---	MR	P	T
USDA-TN	JTN-5303	CV5	5.2	---	2, 3, 5, 14	---	---	R	W	T
USDA-TN	JTN-5203	CV5	5.3	---	2, 3, 14	R	MR	R	W	G
USDA-TN	JTN-5108	CV5	5.4	---	2, 3	MR	R	R	W	T
USDA-TN	JTN-5308	CV5	5.4	---	2, 3, 14	S	---	---	P	T
USDA-TN	JTN-5503	CV5	5.4	---	2,3,5,14	---	---	R	W	T
USDA-TN	JTN-5107	CV5	5.5	---	2, 3	R	---	R	W	G
USG	74G99 (LL)	CV4	4.9	LL	---	---	MS	MR	P	G
USG	5002T	CV5	5.0	---	---	R	MR	R	W	T
USG	5601T	CV5	5.6	---	---	---	MR	MR	W	G
USG	Allen (RR) (RR5 Check)	CV5	5.6	RR	---	---	MR	MR	W	G
USG	74A39 (RR)	R4E	4.3	RR	R 3, MR 14	---	MR	---	P	LT
USG	74C36 (RR)	R4E	4.3	RR	---	R	MR	S	P	T

Table 62 (continued)

Brand	Variety	2008 Test	Relative Maturity	Herbicide Tolerance	SCN Resistance	Stem Canker	SDS	Frogeye	Flower Color	Pubescence Color
USG	74A45 (RR)	R4E	4.4	RR	R3, MR 14	---	MR	MR	P	LT
USG	74B58 (RR/STS)	R4E	4.5	RR/STS	R 3, MR 14	R	MR	S	P	LT
USG	74A69 (RR)	R4L	4.6	RR	---	MS	MR	MR	P	LT
USG	74A76 (RR)	R4L	4.7	RR	MR 3,14	---	MR	MR	P	T
USG	74A79 (RR/STS)	R4L	4.7	RR/STS	---	MS	MR	---	P	LT
USG	74D79 (RR)	R4L	4.7	RR	R3	R	MR	MR	P	T
USG	74A88 (RR)	R4L	4.8	RR	R3, MR 14	---	MR	MR	W	T
USG	74E88 (RR/STS)	R4L	4.8	RR/STS	R3, MR 14	---	MR	---	W	T
USG	7495nRS	R4L	4.9	RR/STS	R 3, MR 14	---	MR	---	P	G
USG	74A91 (RR)	R4L	4.9	RR	---	---	MR	MR	P	LT
USG	74F96 (RR)	R4L	4.9	RR	MR 3	R	MR	MR	P	LT
USG	74F96 (RR) Cruiser	R4L	4.9	RR	MR 3	R	MR	MR	P	LT
USG	74T98 (RR)	R4L	4.9	RR	MR 3, 14	---	R	---	P	G
USG	75M16 (RR/STS)	R5E	5.1	RR/STS	R 3	MR	MR	MR	W	G
USG	75J32 (RR)	R5E	5.3	RR	MR 3,14	R	MR	MR	P	G
USG	75Z38 (RR)	R5E	5.3	RR	MR 3	R	MS	MR	P	T
USG	75M49 (RR)	R5E	5.4	RR	MR 3	R	MR	R	W	G
USG	7553nRS	R5E	5.5	RR/STS	MR 3, 14	R	MR	MR	W	G
USG	7553nRS (Cruiser)	R5E	5.5	RR/STS	MR 3, 14	R	MR	MR	W	G
USG	Allen (RR)	R5L	5.6	RR	---	---	MR	MR	W	G
USG	Allen (RR) Cruiser	R5L	5.6	RR	---	---	MR	MR	W	G
USG	75Z98 (RR)	R5L	5.9	RR	R 3, MR 1, 14	R	R	MR	W	G
VA	Glenn	CV5	5.4	---	2,3	---	---	---	G	W

RR = Contains a gene for tolerance to glyphosate herbicide; STS = tolerance to sulfonylurea class of herbicides; LL = contains a gene for tolerance to glufosinate herbicide.

R = resistant, MR = moderately resistant, MS = moderately susceptible, S = susceptible, VS = very susceptible.

Flower & Pubescence colors:P = purple, W = white, S = segregating, T = tawny, LT = light tawny, B = Brown, G = gray.

Most information supplied by companies.

RR3 = Roundup Ready 3

R4E = Roundup Ready Early Group 4

R4L = Roundup Ready Late Group 4

R5E = Roundup Ready Early Group 5

R5L = Roundup Ready Late Group 5

CV4, CV5 = Conventional Group 4 & 5

Table 63. Contact information for soybean seed companies evaluated in yield tests in Tennessee during 2009.

Company	Contact	Phone	Email	Web site	Address
University of Arkansas	Pengyin Chen	479-575-7564	tishibi@uark.edu		Dept of Crop, Soil & Env. Sciences 115 Plant Science Bldg Fayetteville, AK 72701
Monsanto (Asgrow)		800-768-6387		www.asgrowanddekalb.com	
Cullum Seeds		877-822-7333		www.cullumseeds.com	
(Armor, Delta King)	Lane Dill	901-233-0274	lanedill@jwrayseeds.com		P.O. Box 178, Fisher, AR 72429
	Jimmy Wray	270-832-3843	jimmywray@jwrayseeds.com		6497 Turner Landing Rd., LaCenter, KY 42056
Croplan Genetics/Land o Lakes	Jesse Witt	256-221-5932	JBWitt@landolakes.com	www.croplangenetics.com	Consolidated Ag Products (Agriliance)
	Keith Saum	731-610-7006	kdsaum@landolakes.com		and
	Darrin Holder	270-207-0190			Tennessee Farmers Co-op
	Jim Payne	901-652-0903	jpayne@ourcoop.com	www.ourcoop.com	Locations
	Ashley Plymale	270-719-1570			
	Curtis Yates	865-567-8174			
	Matt Sowder	901-355-7267			
Channel	Wayne Hoener	515-597-5950	wayne.hoener@channelbio.com	www.channelbio.com	3395 Leatherwood Rd, Williamsport, TN 38487
Dairyland Seed Co	Lanny Warren	731-234-2921	lanny.warren@charter.net	www.dairylandseed.com	208 South Thompson St., Union City, TN 38261
Delta Grow Seed	Lee Hughes	800-530-7933	leehughes19@hotmail.com	www.deltagrow.com	P O Box 219, England, AR 72046
Crop Production Services	Brandon Sheridan	901-277-3638	brandon.sheridan@uap.com	www.dynagroseed.com	57 Germantown Ct Suite 200, Cordova, TN 38018
(Dyna-Gro)	Steve Johnson	731-885-5121	sjohnson@agriumretail.com		530 N. Fifth St/ P O Box 40, Union City, TN 38281
Hornbeck Seed Co	Sonny Booker	501-472-2507	jthomas@hbkseed.com	www.hbkseed.com	Hornbeck Seed Co. P O Box 472, 210 Drier Rd, DeWitt, AR 72042
Kansas State University	Bill Schapaugh	785-770-7906	wts@ksu.edu		Agronomy Department 2004 Throckmorton Manhattan, KS 66506
University of Missouri	Grover Shannon	573-379-5431	shannong@missouri.edu		
Cache River Valley Seed	Andy Morris	901-674-0768		www.crvseed.com	Highway 226 East, Cash, AR 72421
(Morsoy)	James Crawford	870-974-2310	jamesc@crvseed.com		Cash, AR 72421
Syngenta (NK Brand)	Jameson Wade	270-293-7942		www.nk-us.com	1630 Kirk Ridge Rd., Murray, KY 42071
	Mitch Raby	256-541-0415			126 Tyler Will Drive, harvest, AL 35749
North Carolina State Univ.	Andrea Cardinal	919-513-0913	andrea_cardinal@ncsu.com		
USDA-NC	Joe Burton	919-513-1481	joe_burton@ncsu.com		
Pioneer Hi-Bred Int.	Michael Hughes	800-331-2475	michael.hughes@pioneer.com	www.pioneer.com	700 Boulevard South, Suite 302, Huntsville, AL 35802
Erwin Keith Seed Inc (Progeny)	Brian Murray	870-238-2079	bmurray@progenyag.com	www.progenyag.com	1529 Hwy 193, Wynne, AR 72396

Table 63 (continued)

Company	Contact	Phone	Email	Web site	Address
Schillinger Seed Inc	Jim Craig Cory Nikkel	800-264-4433 515-225-1166	 cnikkel@schillingerseed.com	www.schillingerseed.com	P O Box 1088, Stuttgart, AR 72160 4200 Corporate Dr, Ste 106, W. Des Moines, IA 50266
Miles Farm Supply (Southern Cross)	Scott Janes	888-786-4537	scojan@milesnmore.com	www.milesnmore.com	P O Box 22879, Owensboro, KY 42304
Steyer Seeds	Phil Coffman Tom Jones Joe Steyer	270-832-7362 270-213-0020 800-231-4274	 joesteyer@yahoo.com	www.steyerseeds.com	Clay, KY Sebree, KY 6154 N. Co. Rd. 33, Tiffin, OH 44883
Stine	Stratton Seed Co.	870-673-4433	jcraig@strattonseed.com	www.stineseed.com	P O Box 1088, Stuttgart, AR 72160
University of Tennessee	Vince Pantalone	865-974-8801	vpantalo@utk.edu		Dept. of Plant Sciences, Ellington 252 2431 Joe Johnson Drive Knoxville, TN 37996-4561
Terral Seed Inc	Larry Mullen	318-559-2840	lmullen@terralseed.com	www.terralseed.com	P O Box 826, Lake Providence, LA 71254
Trisler Seeds Inc (Trisoy)	Derrel Wegner	270-853-2360	derrel.wegner@trisler.com	www.trisler.com	200 Sullivan Ave., Paducah, KY 42003
USDA-ARS TN	Prakash Arelli	731-425-4741	parelli@ars.usda.gov		605 Airways Blvd, Jackson, TN 38301
Unisouth Genetics (USG)	Stacy Burwick David Fandrich Mark Huffstetler Trey Hurt Wes Miller Billy Sellers	615-242-3397 931-967-3377 731-235-2167 731-836-7574 731-536-6251 731-538-2990	sburwick@usgseed.com fandrichsupply@aol.com huffy1@crunet.com treyhurt@bellsouth.com wes@obiongrain.com 	www.usgseed.com	2640-C Nolensville Rd., Nashville, TN 37211 Fandrich Supply Co, Belvidere, TN Huffstetler & Sons Seed Inc, Greenfield, TN Hurt Seed Co. Inc, Halls, TN Obion Grain Co. Inc, Obion, TN Sellers Seed, Obion, TN
Virginia Tech	Bruce Beahm	804-746-4884	bbeahm@rivnet.net	www.virginiacrop.org	Virginia Crop Improvement Assoc. P.O. Box 78 Mt. Holly, VA 22524

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